First Section.
Euler's work organized chronologically by date of publication.

1726.

E1 Constructio linearum isochronarum in medio quocunque resistente, autore Leonhardo Eulero, Basileensi.

Acta eruditorum, 1726, p. 361-363 + 1 figure.
Reprinted in *Opusc. math. Act. erud. Lips.* 6, 1746, p. 579-581 [**E1a**].

1727.

E2 Q. F. F. Q. S. Dissertatio physica de sono quam annuente numine divino jussu magnifici et sapientissimi philosophorum ordinis pro vacante professione physica ad d. 18. febr. a. MDCCXXVII. in auditorio juridico hora 9. publico eruditorum examini subjicit Leonhardus Eulerus A. L. M. respondente adolescente Ernesto Ludovico Burcardo, phil. cand. Basileae, typis E. & J. R. Thurnisiorum, fratrum.

Kgl. Library in Berlin.
Example used: University Lib. in Basel.
4^0, 16 pages. Contains two chapters: 1. De natura et propagatione soni. 2. De productione soni; the last page contains 6 "annexa."
Reprinted in *Disputationes anatomicae selectae editit A. Haller* 7:2, Gottingen 1751, p. 207-226 [**E2a**].

E3 Leonhardi Euleri, A. L. M. Methodus inveniendi trajectorias reciprocas algebraicas.

Acta eruditorum, 1727, p. 408-412 + 3 figures.
Reprinted in *Opusc. math. Act. erud. Lips.* 6, 1746, p. 629-632 [**E3a**].

1728.

E4 Meditationes super problemate nautico, de implantatione malorum, quae proxime acessere ad praemium anno 1727. à regia scientiarum academia promulgatum. Parisiis, apud Claudium Jombert, bibliopolam, via San-Jacobaea, sub signo beatae Mariae. M.D.CC.XXVIII. Cum approbatione et privilegio regis.

Example used: Lib. of the Stockholm Sci. Acad.
4^0, (2) + 48 pages + 2 diagrams. Motto: "Omnes enim trahimur, et ducimur ad cognitionis et scientiae cupiditatem, in quâ excellere pulchrum putamus. M.T. Cicero de Officiis." – Anonymous. An informative note from N. Fuss in his *Èloge de monsieur Lèonard Euler* (St. Petersburg 1783, p.98) states that there is no doubt that this piece came from Euler. The other treatise about this same competition question ("De la mâture des vaisseaux") which won second prize, is written by Ch. E. L. Camus. Euler's essay was undoubtedly sent in in 1726 or 1727, since the winning essay by P. Bouger had already appeared in print in 1727.
Republished: *Recueil des pièces qui ont remporté lex prix de l'académie royale des sciences* 2, 1732, 48 pages + 2 diagrams [**E4a**].

1729.

E5 Problematis trajectoriarum reciprocarum solutio. Auctore Leonhardo Eulero, Basil.

Commentarii academiae scientiarum Petropolitanae 2, (1727), 1729, p. 90-111 + 1 diagram. The top of page 90 reads: "M. Jul. 1727"; according to the records, it was presented on February 13, 1728.
Reprinted in *Comment. acad. sc. Petrop.* 2, ed. nova, Bononiae 1741, p. 79-97 + 1 diagram [**E5a**].

E6 Dissertatio de novo quodam curvarum tautochronarum genere. Auctore Leonh. Eulero.

Intrigued by a clock invented by D. Sully, Euler busied himself with the construction of curves which cause a pendulum to swing isochronally.
Commentarii academiae scientiarum Petropolitanae 2, (1727), 1729, p. 126-138 + 1 diagram. The top of page 126 reads: "M. Jul. 1727"; according to the records, it was presented on April 2, 1728.
Reviewed in *Nova acta erud.* 1731, p. 301.
Reprinted in *Comment. acad. sc. Petrop.* 2, ed. nova, Bononiae 1741, p. 111-121 + 1 diagram [**E6a**].

E7 Tentamen explicationis phaenomenorum aeris. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 2, (1727), 1729, p. 347-368 + 1 diagram. The top of page 347 reads: "M. Sept. 1727"; it appears to have been presented after September 3, 1728.
Reviewed in *Nova acta erud.* 1731, p. 304-305.
Reprinted in *Comment. acad. sc. Petrop.* 2, ed. nova, Bononiae 1741, p. 303-322 + 1 diagram [**E7a**].

1732.

E8 Solutio problematis de invenienda curva, quam format lamina utcunque elastica in singulis punctis a potentiis quibuscunque sollicitata. Auctore Leonhardo Eulero.

Commentarii academiae scientiarum Petropolitanae 3, (1728), 1732, p. 70-84 + 15 figures. The top of page 70 reads: "M. Febr. 1728"; December 22, 1730 is mentioned in the records as the end of publication.
Reprinted in *Comment. acad. sc. Petrop.* 3, ed. nova, Bononiae 1742, p. 64-77 + 15 figures [**E8a**].

E9 De linea brevissima in superficie quacunque duo quaelibet puncta jungente. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 3, (1728), 1732, p. 110-124 + 1 diagram. The top of page 110 reads: "M. Nov. 1728"; but the treatise could hardly have been written

before the beginning of 1729, and certainly wasn't finished before April 1729 (see *Bibl. math.* 1899, p. 19-23); December 22, 1730 is mentioned in the records as the end of publication.
Reviewed in *Nova acta erud.* 1734, p. 262.
Reprinted in *Comment. acad. sc. Petrop.* 3, ed. nova, Bononiae 1742, p. 99-111 + 1 diagram [**E9a**].

E10 Nova methodus innumerabiles aequationes differentiales secundi gradus reducendi ad aequationes differentiales primi gradus.Auctore Leonh. Eulero.

The equations are of the form

$$\frac{d^2y}{dx^2} = \sum_{(r)} f_r(x)\varphi_{r_u}(y)\left(\frac{dy}{dx}\right)^{n_r}.$$

Commentarii academiae scientiarum Petropolitanae 3, (1728), 1732, p. 124-137. The top of page 124 reads: "M. Sept. 1728"; according to the records, it was presented on September 10, 1728.
Reviewed in *Nova. acta erud.* 1734, p. 262.
Reprinted in *Comment. acad. sc. Petrop.* 3, ed. nova, Bononiae 1742, p. 112-124 [**E10a**].

Also see 1728 (E4a).

1733.

E11 L. Euleri Constructio aequationum quarundam differentialium, quae indeterminatarum separationem non admittunt.

The equations are

$$\frac{dy}{dx} + \frac{y^2}{x} = \frac{x}{x^2+1}, \quad ax^n = \frac{dy}{dx} + y^2.$$

Nova acta eruditorum, 1733, p. 369-373.
Reprinted in *Opusc. math. Act. erud. Lips.* 7, 1746, p. 323-325 [**E11a**].

1735.

E12 De innumerabilibus curvis tautochronis in vacuo. Auct. Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 4, (1729), 1735, p. 49-67 + 2 diagrams. The top of page 49 reads: "Mens. Sept. 1729"; according to the records, it was presented on September 9, 1729.
Reviewed in *Nova acta erud.* 1737, p. 222. *Bibliothèque Germanique* 34, 1736, p. 118-120.
Reprinted in *Comment. acad. sc. Petrop.* 4, ed. nova, Bononiae 1743, p. 42-57 + 2 diagrams [**E12a**].

E13 Curva tautochrona in fluido resistentiam faciente secundum quadrata celeritatum. Auct. Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 4, (1729), 1735, p. 67-89 + 1 diagram. The top of page 67 reads: "M. Octobr. 1729"; according to the records, it was presented on October 21, 1729.
Reviewed in *Nova acta erud.* 1737, p. 222.
Reprinted in *Comment. acad. sc. Petrop.* 4, ed. nova, Bononiae 1743, p. 57-76 + 1 diagram [**E13a**].

E14 Solutio problematis astronomici ex datis tribus stellae fixae altitudinibus et temporum differentiis invenire elevationem poli et declinationem stellae. Auct. Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 4, (1729), 1735, p. 98-101 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on February 22, 1732.
Reprinted in *Comment. acad. sc. Petrop.* 4, ed. nova, Bononiae 1743, p. 84-88 + 2 figures [**E14a**].

1736.

E15 Mechanica sive motus scientia analytice exposita. Auctore Leonhardo Eulero academiae imper. scientiarum membro et matheseos sublimioris professore. Tomus I. Instar supplementi ad commentar. acad. scient. imper. Petropoli. Ex typographia academiae scientarum. A. 1736.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (16) + 480 pages + 4 diagrams. In addition to the dedication to J.A. Von Korff and the "Praefatio," it contains 6 chapters: 1. De motu in genere. 2. De effectu potentiarum in punctum liberum agentium. 3. De motu rectilineo puncti liberi a potentiis absolutis sollicitati. 4. De motu rectilineo puncti liberi in medio resistente. 5. De motu puncti curvilineo libero a quibusdam potentiis absolutis sollicitati. 6. De motu puncti curvilineo libero in medio resistente. The dedication is dated August 1, 1736, but in the manuscript this part was finished by the end of 1734, according to Euler's own statement (see Euler's letter to Daniel Bernoulli from November (?) 1734, *Bibl. math.* 7_3, 1906, p. 139).
Reviewed in *Nova. acta erud.* 1738, p.113-133. *Deutsche Acta erud.* 19, 1738, p. 417-447 (also discusses the second volume). *Mém. de Trévoux* 1740, p. 816 – 834. *Bibliothèque Germanique* 39, 1737, p. 93 – 108 (also discusses the second volume).
B. Robbins published a work in 1739: *Remarks on Mr. Euler's Treatise of motion, Dr. Smith's Compleat system of opticks and Dr. Jurin's Essay upon distinct and indistinct vision* (London 1739), where "Remarks on Mr. Euler's treatise entitled Mechanica" is found on p. 1-29.
Continued in E16.

E15A Translated into German: Leonhard Euler's Mechanik oder analytische Darstellung der Wissenschaft von der Bewegung mit Anmerkungen und Erläuterungen herausgegeben von Dr. J. Ph. Wolfers. Erster Teil. Greifswald 1848. C. A. Koch's Verlagshandlung.

Kgl. Library in Berlin.
Example used: G.E.
8^0, (2) + IV + 499 pages + 4 diagrams.
Continued in E16A.

E16 Mechanica sive motus scientia analytice exposita auctore Leonhardo Eulero academiae imper. scientiarum membro et matheseos sublimioris professore. Tomus II. Instar supplementi ad commentar. acad. scient. imper. Petropoli ex typographia academiae scientarum. A. 1736.

Kgl. Library in Berlin
Example used: G.E.
4^0, (8) + 500 pages + 18 diagrams. In addition to the "Praefatio," it contains 4 chapters: 1. De motu non libero in genere. 2. De motu puncti super data linea in vacuo. 3. De motu puncti super data linea in medio resistente. 4. De motu puncti super data superficie.
Reviewed in *Nova acta erud.* 1738, p.262-279. *Deutsche Acta erud.* 19, 1738, (see E15 above). *Mém. de Trévoux* 1740, p. 1407-1422. *Bibliothèque Germanique* 39, 1737, (see E15 above).
Also see E15.

E16A Translated into German: Leonhard Euler's Mechanik oder analytische Darstellung der Wissenschaft von der Bewegung mit Anmerkungen und Erläuterungen herausgegeben von Dr. J. Ph. Wolfers. Zweiter Teil. Greifswald 1850. C. A. Koch's Verlagshandlung.

Kgl. Library in Berlin.
Example used: G.E.
8^0, IV + 590 pages + 6 diagrams.
Also see E15A.

1738.

E17 Einleitung zur Rechen-Kunst zum Gebrauch des Gymnasii bey der Kayserlichen Academie der Wissenschafften in St. Petersburg. Gedruckt in der Academischen Buchdruckerey 1738.

Herzogl. Library in Gotha.
Example used: Lib. of the Stockholm Sci. Acad.
8^0, (12) + 277 pages. Anonymous. N. Fuss indicates that Euler is the author of these books in his *Èloge* (St. Petersburg 1783, p. 74). Right after the "Vorbericht" there is a second title page: "Erster Theil von den Speciebus mit ganzen un gebrochenen Zahlen." This first part contains 9 chapters: 1. Von der Arithmetic oder Rechenkunst überhaupt. 2. Von der Addition als der ersten Arithmetischen Operation. 3. Von der Subtraction als der zweyten Arithmetischen Operation. 4. Von der Multiplication als der dritten Arithmetischen Operation. 5. Von der Diuision als der vierten Arithmetischen Operation. 6. Von den Brüchen und der Natur derselben überhaupt. 7. Von der Addition und Subtraction der gebrochenen Zahlen. 8. Von der Multiplication mit gebrochenen Zahlen. 9. Von der Diuision mit gebrochenen Zahlen. According to the records of the St. Petersburg Academy, this work was finished on March 21, 1735.
Continued in 1740 (E35) .

E17A Translated into Russian: Руководство къ ариѳметикѣ для употребленія гимназіи при императорской академіи наукъ. Переведено съ Нѣмецкаго чрезъ Василья Адодурова, академіи наукъ адъюнкта. Въ Санктпетербургѣ 1740.

8^0, 312 pages. According to Bobynin's Russian physicist/mathematician bibliography (Русская физико-математическая библіографія) 1:2 (1886), p. 74. This first part is translated by Wasili Adoduroff, as stated in the title.

Continued in 1740 (E35A).

E18 Leonhardi Euleri De Indorum anno solari astronomico.

At the end of *Historia regni Graecorum Bactriani*, by Th. S. Bayer, (St. Petersburg 1738), p. 201-213.
Reviewed in Bibliothèque Germanique 47, 1740, p. 129.

E19 De progressionibus transcendentibus, seu quarum termini generales algebraice dari nequeunt. Auct. L. Eulero.

The terms of the sequence given by $u_x = 1 \cdot 2 \cdot 3 \ldots x$, and related sequences, are expressed with gamma- and beta-integrals.
Commentarii academiae scientiarum Petropolitanae 5, (1730/1), 1738, p. 36-57. According to the records, it was presented to the St. Petersburg Academy on November 28, 1729. Euler gave the essential content of this treatise to his friend Goldbach in a letter on January 8, 1730. (P.H. Fuss, *Correspondance mathématique et physique de quelques célèbres géomètres du XVIII*^{ème} *siècle*, St. Petersburg, 1843, I, p. 11-18)[1].
Reviewed in *Nova acta erud.* 1740, p. 306 - 307.
Reprinted in *Comment. acad. sc. Petrop.* 5, ed. nova, Bononiae 1744, p. 28-47 [**E19a**].

E20 De summatione innumerabilium progressionum. Auct. L. Eulero.

Sums of sequences which are generated by a rational fractional function of the index integer will be derived using integration.
Commentarii academiae scientiarum Petropolitanae 5, (1730/1), 1738, p. 91-105. According to the records, it was presented to the St. Petersburg Academy on March 5, 1731.
Reviewed in *Nova acta erud.* 1740, p. 310 – 313.
Reprinted in *Comment. acad. sc. Petrop.* 5, ed. nova, Bononiae 1744, p. 75-88 [**E20a**].

E21 Quomodo data quacunque curva inveniri oporteat aliam, quae cum data quodammodo juncta ad tautochronismum producendum sit idonea. Auct. L. Eulero.

Commentarii academiae scientiarum Petropolitanae 5, (1730/1), 1738, p. 143-159 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on March 7, 1732.
Reviewed in *Nova acta erud.* 1740, p. 317-318.
Reprinted in *Comment. acad. sc. Petrop.* 5, ed. nova, Bononiae 1744, p. 119-132 + 2 diagrams [**E21a**].

E22 De communicatione motus in collisione corporum. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 5, (1730/1), 1738, p. 159-168 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on September 28, 1731.

Reviewed in *Nova acta erud.* 1740, p. 318-319. *Bibliothèque Germanique* 48, 1740, p. 40-50.

[1] This letter collection will be cited as Fuss, *Corr.* from this point on.

Reprinted in *Comment. acad. sc. Petrop.* 5, ed. nova, Bononiae 1744, p. 133-140 + 4 figures [**E22a**].

E23 De curvis rectificabilibus algebraicis atque trajectoriis reciprocis algebraicis. Auct. Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 5, (1730/1), 1738, p. 169-174 + 1 figure.
The presentation date is unknown.
Reviewed in *Nova acta erud.* 1740, p. 319.
Reprinted in *Comment. acad. sc. Petrop.* 5, ed. nova, Bononiae 1744, p. 140-145 + 1 figure [**E23a**].

E24 Solutio singularis casus circa tautochronismum. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 6^2, (1732/3), 1738, p. 28-36 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on September 3, 1731.
Reviewed in *Nova acta erud.* 1746, p. 600. *Journal littéraire d'Allemagne* 2:2, 1743, p. 37-47.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 25-33 + 2 figures [**E24a**].

E25 Methodus generalis summandi progressiones. Auctore Leonh. Eulero.

The "Euler Summation Formula" (without derivation). Further sums of many sequences of the form

$$\sum \frac{A_n P_n}{B_n Q_n} x^{an+b} \quad ,$$

where A_n, B_n are any rational function of n, and P_n, Q_n are factorial expressions will be calclated using integrals.
Commentarii academiae scientiarum Petropolitanae 6^2, (1732/3), 1738, p. 68-97. According to the records, it was presented to the St. Petersburg Academy on June 20, 1732.
Reviewed in *Nova acta erud.* 1746, p. 603-607.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 61-94 [**E25a**].

E26 Observationes de theoremate quodam Fermatiano, aliisque ad numeros primos spectantibus. Auctore Leonh. Eulero.

Proof that $2^{2^m+1}+1$ is not always a prime number, and some theorems about the divisors of certain numbers of the form $a^n \pm b^n$.
Commentarii academiae scientiarum Petropolitanae 6^2, (1732/3), 1738, p. 103-107. According to the records, it was presented to the St. Petersburg Academy on September 26, 1732.
Reviewed in *Nova acta erud.* 1746, p. 609-610.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 98-102 [**E26a**].
Reprinted in *Commentat. arithm.* 1, 1849, p. 1-3 [**E26b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

[2] There are examples of this volume with 1739 given as the year of publication.

E27 Problematis isoperimetrici in latissimo sensu accepti solutio generalis. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 6[2], (1732/3), 1738, p. 123-155 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on October 27, 1732.
Reviewed in *Nova acta erud.* 1746, p. 610-612.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 116-144 + 1 diagram [**E27a**].

E28 Specimen de constructione aequationum differentialium sine indeterminatarum separatione. Auctore Leonh. Eulero.

Reduction of the equation

$$\frac{dy}{dx}+\frac{y^2}{x}=\frac{x}{x^2-1}$$

of the rectification of an ellipse.
Commentarii academiae scientiarum Petropolitanae 6[2], (1732/3), 1738, p. 168-174 + 1 diagram. According to the records, it was probably presented to the St. Petersburg Academy on January 9, 1733.
Reviewed in *Nova acta erud.* 1746, p. 613.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 156-162 + 1 diagram [**E28a**].

E29 De solutione problematum Diophantaeorum per numeros integros. Auctore Leonh. Eulero.

About the equation $ax^2 + bx + c = y^2$ and special treatment of the "Pell" equation $ax^2 + 1 = y^2$.
Commentarii academiae scientiarum Petropolitanae 6[2], (1732/3), 1738, p. 175-188. According to the records, it was presented to the St. Petersburg Academy on May 29, 1733.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 162-174 [**E29a**].
Reprinted in *Commentat. arithm.* 1, 1849, p. 4-10 [**E29b**].

E30 De formis radicum aequationum cujusque ordinis conjectatio. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 6[2], (1732/3), 1738, p. 216-231. According to the records, it was presented to the St. Petersburg Academy on November 2, 1733.
Reviewed in *Nova acta erud.* 1746, p. 615-616.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1743, p. 200-213 [**E30a**].

E30A Translated into German: Gedanken über die Formen der Wurzeln einer jeden Gleichung. Von Leonhard Euler.

Leohard Eulers *Einleitung in die Analysis des Unendlichen* 3, Berlin 1791, p. 3-23. Translated by J. A. Chr. Michelsen .

[2] There are examples of this volume with 1739 given as the year of publication.

E31 Constructio aequationis differentialis $ax^n dx = dy + y^2 dx$. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 6^2, (1732/3), 1738, p. 231-246. According to the records, it was presented to the St. Petersburg Academy on February 16, 1733.
Reviewed in *Nova acta erud.* 1746, p. 616-617.
Reprinted in *Comment. acad. sc. Petrop.* 6, ed. nova, Bononiae 1734, p. 213-228 [**E31a**].

E32 О внѣшнемъ видѣ земли.

Примѣчанія на вѣдомости (Remarks on the journal) 1738, Физ.-матем. часть p.108, 112, 116, 120, 124, 128, 395. About the outer shape of the earth. According to Bobynin's Russian Physicist/Mathematician Bibliography1:2 (1886), p. 55-56.

1739.

E33 Tentamen novae theoriae musicae ex certissimis harmoniae principiis dilucide expositae. Auctore Leonhardo Eulero. Petropoli, ex typographia academiae scientarum. MDCCXXXIX.

Kgl. Library in Berlin
Example used: G.E.
4^0, 21 + (1) + 263 pages + 6 diagrams. According to the inscription, the original title of this book was: "Tractatus de musica". In addition to the "Praefatio," it contains 14 chapters: 1. De sono et auditu. 2. De suavitate et principiis harmoniae. 3. De musica in genere. 4. De consonantiis. 5. De consonantiarum successione. 6. De seriebus consonantiarum. 7. De variorum intervallorum receptis appellationibus. 8. De generibus musicis. 9. De genere diatonico-chromatico. 10. De aliis magis compositis generibus musicis. 11. De consonantiis in genere diatonico-chromatico. 12. De modis et systematibus in genere diatonico-chromatico. 13. De ratione compositionis in dato modo et systemate dato. 14. De modorum et systematum permutatione. The book was almost finished in May 1731 (see the letter from Euler to Johann Bernoulli from May 25, 1731, *Bibl. math.* 4_3, 1903, p. 383).
Reviewed in *Nova acta erud.* 1742, p. 18-33, 72-81. *Nouvelle bibliothèque Germanique* 1, 1746, p. 241-251. *Zuverlässige Nachrichten von dem gegenwärtigen Zustande der Wissenschaften* 2, Leipzig 1741, p. 722-751 (Mitzler) – Euler appears not to have read this review yet, in 1747 (see his letter to Goldbach from May 6, 1747 [Fuss, *Corr.* I, p. 420]).

33A Translated into French: Essai d'une nouvelle théorie sur la musique.

Œuvres complètes d'Euler 5, 1839, p. I-VII, 1-215.
Republished in *Musique mathématique*, Paris 1865, p. I-VII, 1-215 [**E33Aa**].

E34 Dissertatio de igne, in qua ejus natura et proprietates explicantur: occasione quaestionis, cum praemio annexo, ab illustrissima academia scientiarum regia Parisina pro anno 1738 propositae, ejusdem academiae judicio aequo submissa: Cui praemium, in tres partes divisum,

[2] There are examples of this volume with 1739 given as the year of publication.

pro uno ex illis addictum est. Auctore D. Leonardo Euler (!), mathematicae profess. & academiae scientiarum Petropolitanae socio.

Pièces qui ont remporté le prix de l'académie royale des sciences en M.DCCXXXVIII, (Paris 1739), p. 1-19. Motto:

Magnum iter ascendo, sed dat mihi gloria vires;
Non juvat ex facili lecta corona jugo.

According to the records, it was presented to the St. Petersburg Academy on July 15, 1737. Republished in *Recueil des pièces qui ont remporté les prix de l'académie royale des sciences* 4, 1752, p. 3-19 [**E34a**].

E34A Translated into French: Dissertation sur le feu, sur sa nature et ses propriétés.

Œuvres complètes d'Euler 2, 1839, p. 275-290.

Also see the footnotes for E24-E31.

1740.

E35 Einleitung zur Rechen-Kunst zum Gebrauch des Gymnasii bey der Kayserlichen Academie der Wissenschafften in St. Petersburg. Zweyter Theil. Gedruckt in der Academischen Buchdruckerey 1740.

Herzogl. Library in Gotha.
Example used: Lib. of the Stockholm Sci. Acad.

8^0, 29 + (2) + 228 pages. Anonymous (similar to E17). After the first 29 pages, which give information about "die fürnehmsten Sorten," a new title page follows: "Zweyter Theil von den Speciebus mit bennanten Zahlen." The second part contains 5 chapters: 1. Von der Resolution und Reduction. 2. Von der Addition und Subtraction in bennanten Zahlen. 3. Von der Multiplication und Division verschiedener Sorten durch gantze Zahlen. 4. Von der Division benannter Zahlen durch benannte Zahlen. 5. Von der Multiplication und Division benannter Zahlen durch Brüche.
Also see 1738 (E17).

E35A Translated into Russian: Руководство къ ариѳметикѣ для употребленія гимназіи при имцераторской академіи наукъ. Часть вторая. Переведена съ Нѣмецкаго языка академіи наукъ студентомъ Васильемъ Кузнецовымъ. Въ Санктпетербургѣ 1760 года.

8^0, 227 pages. According to Bobynin's Russian physicist/mathematician bibliography 1:3 (1890), p. 67. This second part is translated by Wasili Adoduroff, as stated in the title.
Also see 1738 (E17A).

E36 Solutio problematis arithmetici de inveniendo numero qui per datos numeros divisus, relinquat data residua. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 46-66. The presentation date is unknown.

Reviewed in *Nova acta erud.* 1751, p. 503.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 43-60 [**E36a**].
Reprinted in *Commentat. arithm.* 1, 1849, p. 11-20 [**E36b**].

E36A Loosely translated into French: Mémoire sur ce problème d'arithmétique: Trouver un nombre qui, divisé par des nombres connus, laisse pour résidus des nombres donnés.

Œuvres complètes d'Euler 3, 1839, p. 437-459.
Republished in L. Euler, *Cours d'arithmétique raisonnée*, Paris 1865, p. 437-459 [**E36Aa**].

E37 De motu planetarum et orbitarum determinatione. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 67-85 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on November 21, 1735.
Reviewed in *Nova acta erud.* 1751, p. 503-504.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 60-78 + 1 diagram [**E37a**].

E38 Orbitae solaris determinatio. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 86-96. The presentation date is unknown.
Reviewed in *Nova acta erud.* 1751, p. 504.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 78-87 [**E38a**].

E39 Solutio problematum quorundam astronomicorum. Auctore Leonh. Eulero.

The problems are: 1. Data planetae aequatione maxima, invenire orbitae ejus excentricitatem. 2. Data excentricitate orbitae planetaris, invenire aequationem maximam. 3. Data excentricitate orbitae planetaris, invenire anomaliam mediam, cui aequatio maxima respondet.
Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 97-98. The presentation date is unknown.
Reviewed in *Nova acta erud.* 1751, p. 504.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 88-89 [**E39a**].

E40 De minimis oscillationibus corporum tam rigidorum quam flexibilium. Methodus nova et facilis. Auctore Leonh. Euler(!).

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 99-122 + 2 diagrams.
It may have been presented to the St. Petersburg Academy on October 27, 1735.
Reviewed in *Nova acta erud.* 1751, p. 504-507.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 90-112 + 2 diagrams [**E40a**].

E41 De summis serierum reciprocarum. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 123-134 + 1 diagram. According to the records, it was read in the St. Petersburg Academy on December 5, 1735, but not handed in.
Reviewed in *Nova acta erud.* 1751, p. 507-508.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 112-123 + 1 diagram [**E41a**].

E42 De linea celerrimi descensus in medio quocunque resistente. Auctore Leonh. Euler(!).

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 135-149 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on February 4, 1734. Euler mentions that he read this treatise in the conference, in his letter to Daniel Bernoulli on February 16, 1734 (*Bibl. math.* 7_3, 1906/7, p. 136).
Reviewed in *Nova acta erud.* 1751, p. 508-509.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 123-137 + 1 diagram [**E42a**].

E43 De progressionibus harmonicis observationes. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 150-161. According to the records, it was presented to the St. Petersburg Academy on March 11, 1734.
Reviewed in *Nova acta erud.* 1751, p. 509-510.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 138-150 [**E43a**].

E44 De infinitis curvis ejusdem generis. Seu methodus inveniendi aequationes pro infinitis curvis ejusdem generis. Auctore Leonh. Eulero.

First of all, the following problem is discussed: A partial differential equation $\frac{\partial z}{\partial x} = f(x, y)$ is given, where $\int_{(x)} f(x, y)dx$ can not be explicitly expressed; it must be solved by converting this partial differential equation into an ordinary equation (one which doesn't contain integral expressions, or at most expressions of the form $\int f_1(x)dx$ and $\int f_2(y)dy$). Second, the integration of the equation $\frac{\partial z}{\partial x} = f(x, y, z)$ using the method of integrated factors is discussed.
Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 174-189 (first pagination), p. 180-183 (second pagination), so 20 pages together. It was probably presented to the St. Petersburg Academy before July 12, 1734.
Reviewed in *Nova acta erud.* 1751, p. 511.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 161-179 [**E44a**].

E45 Additamentum ad dissertationem de infinitis curvis ejusdem generis. Auctore Leonh. Eulero.

The problem of converting the differential equation $\frac{\partial z}{\partial x} = f(x, y)$ into an ordinary equation is dealt with for a large number of special cases of the function f(x,y).
Commentarii academiae scientiarum Petropolitanae 7, (1734/5), 1740, p. 184 (second pagination)-200. According to the records, it was presented to the St. Petersburg Academy on July 12, 1734.
Reprinted in *Comment. acad. sc. Petrop.* 7, ed. nova, Bononiae 1748, p. 179-194 [**E45a**].

Also see 1738 (E17A: Russian translation of "Rechenkunst").

1741.

E46 Methodus universalis serierum convergentium summas quam proxime inveniendi. Auctore Leonh. Eulero.

Summation of sequences, using the formula:

$$\sum u_n = \int u_{n+1} dn + \Delta ,$$

where Δ is a certain correction.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 3-9 +1 diagram.
According to the records, it was presented to the St. Petersburg Academy on June 9, 1735.
Reviewed in *Nova acta erud.* 1751, p. 584-585.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 1-6 +1 diagram [**46a**].

E47 Inventio summae cujusque seriei ex dato termino generali. Auctore Leonh. Eulero.

Derivation of the "Euler Summation Formula" as well as applications.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 9-22. According to the records, it was presented to the St. Petersburg Academy on October 13, 1735.
Reviewed in *Nova acta erud.* 1751, p. 585-586.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 7-19 [**47a**].

E48 Investigatio binarum curvarum, quarum arcus eidem abscissae respondentes summam algebraicam constituant. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 23-29. According to the records, it was presented to the St. Petersburg Academy on September 6, 1734.
Reviewed in *Nova acta erud.* 1751, p. 586.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 20-25 [**48a**].

E49 De oscillationibus fili flexilis quotcunque ponduculis onusti. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 30-47 + 2 diagrams.
According to the records, it was presented to the St. Petersburg Academy on January 31, 1735.
Reviewed in *Nova acta erud.* 1751, p. 586-589.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 26-42 + 2 diagrams [**49a**].

E50 Methodus computandi aequationem meridiei. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 48-65 + 1 diagram.
According to the records, it was probably presented to the St. Petersburg Academy on February 28, 1735.
Reviewed in *Nova acta erud.* 1751, p. 589-591. *Nouvelle bibliothèque Germanique* 4, 1748, p. 3-8.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p.43-58 + 1 diagram [**50a**].

E51 De constructione aequationum ope motus tractorii, aliisque ad methodum tangentium inversam pertinentibus. Auctore Leonh. Eulero.

Geometric construction of the integral of the equation $\frac{ds}{dz} + s^2 = f(z)$ and treatment of several related differential equations.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 66-85 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on March 17, 1735.
Reviewed in *Nova acta erud.* 1751, p. 591-592.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 59-77 + 1 diagram [**51a**].

E52 Solutio problematum rectivicationem ellipsis requirentium. Auctore Leonh. Eulero.

Euler starts with integrals of the form $z = \int \varphi(b,x)dx$, which are really elliptical integrals, and derives second-order ordinary differential equations using the so-called "Modular equation" whose solution can be put back through the given integral. Then several geometric problems are solved, which cause special cases of derived differential equations to appear.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 86-98 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on June 9, 1735. Euler had solved the problem dealt with in this treatise by the end of 1734. (See his letter to Daniel Bernoulli, *Bibl. math.* 7_3, 1906/7, p. 140)
Reviewed in *Nova acta erud.* 1751, p. 592.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 77-90 + 1 diagram [**52a**].

E53 Solutio problematis ad geometriam situs pertinentis. Auctore Leonh. Eulero.

The famous Königsburg bridges problem.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 128-140 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on August 26, 1735.
Reviewed in *Nova acta erud.* 1751, p. 593-594.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 116-126 + 1 diagram [**53a**].

E53A Translated into French: Solution d'un problème appartenant à la géométrie de situation, par Euler. Traduit par E. Coupy.

Nouvelles annales de mathématiques 10, 1851, p. 106-119. Also, a handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E54 Theorematum quorundam ad numeros primos spectantium demonstratio. Auctore Leonh. Eulero.

Proof of the Fermat Theorem $a^{p-1} - 1 \equiv 0 \pmod{p}$.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 141-146. According to the records, it was presented to the St. Petersburg Academy on August 2, 1736.
Reviewed in *Nova acta erud.* 1751, p. 594.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 127-132 [**54a**].
Reprinted in *Commentat. arithm.* 1, 1849, p. 21-23. [**54b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E55 Methodus universalis series summandi ulterius promota. Auctore Leonh. Eulero.

Sequences, with terms of the form f (a + nb) where f is a general algebraic function, will be summed up using formulas which are related to the Euler Summation Formula.
Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 147-158. According to the records, it was presented to the St. Petersburg Academy on September 17, 1736.
Reviewed in *Nova acta erud.* 1751, p. 594.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p. 132-144 [**55a**].

E56 Curvarum maximi minimive proprietate gaudentium inventio nova et facilis. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 8, (1736), 1741, p. 159-190 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on October 4, 1736.
Reviewed in *Nova acta erud.* 1751, p. 594-595.
Reprinted in *Comment. acad. sc. Petrop.* 8, ed. nova, Bononiae 1752, p.145-174 + 2 diagrams [**56a**].

E57 Inquisitio physica in causam fluxus ac refluxus maris. A. D. D. Euler, mathematicarum professore, è societate academiae imperialis Sancti-Petersburgensis (!).

Pièces qui ont remporté le prix de l'académie royale des sciences en M.DCC.XL, (Paris 1741), p. 235-350 + 4 diagrams. Motto (on the title page):

Cur nunc declivi nudentur littora Ponto,
Adversis tumeat nunc maris unda fretis;
Dum vestro monitu naturam consulo rerum:
Quam procul a terris abdita causa latet!
In solem lunamque feror. Si plauditis auso;

Sidera sublimi vertice summa petam.

According to the records, it was presented to the St. Petersburg Academy on June 15, 1739.
Republished in *Recueil des pièces qui ont remporté les prix de l'académie royale des sciences* 4, 1752, p. 235-350 + 4 diagrams. [**E57a**].
Reprinted in I. Newton, *Philosophiae naturalis principia mathematica*, ed. Leseur and Jaquier, 3, Geneva 1742, p. 283-374. [**E57b**].
Reprinted in I. Newton, *Philosophiae naturalis principia mathematica*, ed. Leseur and Jaquier, 3, editio nova, Coloniae Allobrogum 1760, p. 283-374 [**E57c**].

Also see 1729 (E5a-7a).

1742.

See 1732 (E8a-10a), 1741(E57b).

1743.

E58 Determinatio orbitae cometae qui mense Martio hujus anni 1742 potissimum fuit observatus. Auctore L. Euler (!).

Miscellanea Berolinensia 7, 1743, p. 1-90 + (7) pages +1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 6, 1742.
French extract with the title: Théorème d'Euler sur l'aire du secteur parabolique; *Nouv. ann. de. math.* 16, 1857, p. 33-37 [**58a**].

E59 Ejusdem Theoremata circa reductionem formularum integralium ad quadraturam circuli.

Expressions, most of which are of the form

$$\frac{z^a - z^b}{(1 - z^n)^m}$$

will be integrated.
Miscellanea Berolinensia 7, 1743, p. 91-129. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 6, 1742. The title given above is found on p. 91; in the table of contents of the volume, it reads "circuli quadraturam" instead of "quadraturam circuli."

E60 Ejusdem De inventione integralium si post integrationem variabili quantitati determinatus valor tribuatur.

For the most part, sums of sequences (ex. $\sum_{(n)} \sin(s + mu)$) as well as integration of expressions similar to the ones discussed in the previous treatise.
Miscellanea Berolinensia 7, 1743, p. 129-171 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 6, 1742.

E61 Ejusdem De summis serierum reciprocarum ex potestatibus numerorum naturalium ortarum dissertatio altera: in qua eaedem summationes ex fonte maxime diverso derivantur.

Miscellanea Berolinensia 7, 1743, p. 172-192. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 6, 1742.

E62 Ejusdem De integratione aequationum differentialium altiorum graduum.

Integration of nth-order partial differential equations with constant coefficients.
Miscellanea Berolinensia 7, 1743, p. 193-242. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 6, 1742.

E63 Démonstration de la somme de cette suite: $1+\frac{1}{4}+\frac{1}{9}+\frac{1}{16}+\frac{1}{25}+etc.$

Journal litteraire d'Allemagne, de Suisse et du Nord (La Haye) 2:1, 1743, p. 115-127.
Anonymous. Written in 1740 or 1741, according to the investigation by P. Stäckel (see below).
Reprinted in *Bibl. math.* 8_3, 1907/8, p. 54-60 [**E63a**].
P. Stäckel provided this careful reprint with a detailed historical introduction (p. 37-54).

E64 [Beginning of a letter from Euler to Johann Bernoulli from October 18, 1740.]

Johann Bernoulli, *Opera omnia* 4, Lausanne and Geneva 1742 [foreword dated March 1, 1743], p. 389. See 1905 (E863).

Also see 1735 (E12a-14a), 1738 (E24a-31a).

1744.

E65 Methodus inveniendi lineas curvas maximi minimive proprietate gaudentes, sive solutio problematis isoperimetrici latissimo sensu accepti. Auctore Leonhardo Eulero, professore regio & academiae imperialis scientiarum Petropolitanae socio. Lausannae & Genevae, Apud Marcum – Michaelem Bousquet & socios. MDCCXLIV.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 322 pages + 5 diagrams. Contains 6 chapters: 1. De methodo maximorum et minimorum ad lineas curvas inveniendas applicata in genere. 2. De methodo maximorum et minimorum ad lineas curvas inveniendas absoluta. 3. De inventione curvarum maximi minimive proprietate praeditarum, si in ipsa maximi minimive formula insunt quantitates indeterminatae. 4. De usu methodi hactenus traditae in resolutione varii generis quaestionum. 5. Methodus, inter omnes curvas eadem proprietate praeditas, inveniendi eam quae maximi minimive proprietate gaudeat. 6. Methodus, inter omnes curvas pluribus proprietatibus communibus gaudentes, eam determinandi quae maximi minimive proprietate praedita sit. In addition to the 6 chapters (p. 1-244), 2 “Additamenta” can be found, namely: I. De curvis elasticis(p. 245-310); II. De motu projectorum in medio non resistente, per methodum maximorum ac minimorum determinando (p. 311-320). The manuscript of this work appears to have been finished by April 1743 (see D.

Bernoulli's letter to Euler from April 23, 1743 [Fuss, *Corr.* II, p. 524] as well as Euler's letter to Goldbach from May 21, 1743 [Fuss, *Corr.* I, p. 229]), and in any case it had reached the hands of the publisher in September 1743 (see the letter from D. Bernoulli to Euler from Septmeber 4, 1743 [Fuss, *Corr.* II, p. 529]).
Reviewed in *Nova acta erud.* 1746, p. 71-92.

E65A Translated into German: Methode Curven zu finden, denen eine Eigenshaft im höchsten oder geringsten Grade zukommt oder Lösung des isoperimetrischen Problems, wenn es im wietesten Sinne des Wortes aufgefasst wird. Lausanne und Genf 1744.

Kgl. Library in Berlin.
Example used: G.E.
Klassiker der exakten Wissenschaft 46, Leipzig 1894, p. 21-132. Translated by P. Stäckel; only chapters 1, 2, 5, and 6 are translated. Notes from P. Stäckel are found on p. 133-143.

E66 Theoria motuum planetarum et cometarum. Continens methodum facilem ex aliquot observationibus orbitas cum planetarum tum cometarum determinandi. Una cum calculo, quo cometae, qui annis 1680. et 1681. itemque ejus, qui nuper est visus, motus verus investigatur. Auctore Leonhardo Eulero. Berolini sumtibus Ambrosii Haude. Bibliop. reg. & acad. scient. privilegiati.

Kgl. Library in Berlin.
Example used: G.E.
4^0, engraving + 187 pages + 4 diagrams. Page 187 gives the publication year: "1744." In addition to the main section: De motu planetarum et cometarum circa solem motorum (p. 3-60), this work contains: Cometae, qui circa finem anni 1680. et initium anni 1681. apparuit, loca observata … (p. 61); Investigatio orbis hujus cometae (p. 62-99); Investigatio orbitae cometae qui a. 1744. apparuit (p. 100-136); Additamentum (p.137-177); Cometae, qui anno 1742 apparuit, loca observata …(178-187).
Reviewed in *Nova acta erud.* 1746, p. 27-35.

E66A Translated into German: Leonh. Eulers, Director der Königl. Academie der Wissenschaften von Berlin, Mitglied der Kaiserl. Academie der Wissenschaften von Petersburg, der Königl. von Paris, London, und Göttingen &c. &c. Theorie der Planeten und Cometen von Johann Freyherrn von Paccassi übersetzt, und mit einem Anhange und Tafeln vermehrt. Wien, gedruckt bey Johann Thomas Edeln von Trattnern, kaiserl. königl. Hoffbuchdruckern und Buchhändlern. 1781.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (8) + 230 + (1) pages + 3 diagrams. Additional notes from the translator are found on p. 133-230.
Reviewed in *Götting. gel. Anz.* 1781, p. 735-736 (Kästner). *Allg. deutsche Bibl.* 51:1, 1782, p. 241-242.

E67 Beantwortung verschiedener Fragen über die Beschaffenheit, Bewegung und Würckung der Cometen. Berlin, zu finden bey Ambrosius Haude. 1744.

Kgl. Library in Berlin.
Example used: G.E.
Small 8^0, 56 pages + 3 diagrams. – Anonymous. Euler indicates that this is his work in a letter to Goldbach on April 5, 1746. (Fuss, Corr. I, p. 368-369; also see p. 366) It contains 8 chapters: 1. Wie die Cometen von andern Sternen zu unterscheiden? 2. Ob die Cometen feurige Cörper wie die Fixsterne, oder dunckele, wie die Planeten seyn? 3. Was die Cometen eigentlich für Cörper seyn? 4. Was von dem Schweif der Cometen zu halten sey? 5. Wie die Bewegung der Cometen beschaffen sey? 6. Ob man die Erscheinung der Cometen nicht vorher verkündingen könne? 7. Wie gross die Anzahl der Cometen sey? 8. Ob die Cometen einige Würckung auf die Erde haben können?

E68 Fortgesetzte Beantwortung der Fragen über die Beschaffenheit, Bewegung und Würckung der Cometen. Berlin, zu finden bey Ambrosius Haude. 1744.

Kgl. Library in Berlin.
Example used: G.E.
Small 8^0, 92 + (1) pages. – Anonymous (see the note for E67). It contains 19 chapters with long titles (p. 1-60) and also: Beschluss von dem wahren Lauf des jüngst erscheinenen Cometen (p. 61-70); … Observationes … von einem geschickten Frauenzimmer …(p. 71-84); Über den Schweif des Cometen … (p. 85-92).

E69 De communicatione motus in collisione corporum sese non directe percutientium. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 50-76 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on November 15, 1736. Reviewed in *Nova acta erud.* 1751 p. 646-648.

E70 De constructione aequationum. Auctore Leonh. Eulero.

Euler starts with the integral $z = \int e^{ax} X dx$, where X is a function of x, and derives ordinary differential equations with a as an independent variable, by using the so-called "Modular equation." The solution can then be put back through, by the integration of the expression $e^{ax}X$. Euler finds the Riccati differential equation, as a special case of such an equation.
Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 85-97. According to the records, it was presented to the St. Petersburg Academy on February 7, 1737.
Reviewed in *Nova acta erud.* 1751 p.650-652.

E71 De fractionibus continuis. Dissertatio. Auctore Leonh. Euler(!).

Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 98-137. According to the records, it was presented to the St. Petersburg Academy on March 7, 1737.
Reviewed in *Nova acta erud.* 1751 p. 652-654.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E72 Variae observationes circa series infinitas. Auctore Leonh. Euler(!).

For the most part about sequences, whose general term can not be expressed as an ordinary function of the index integer. Ex:

$$\frac{1}{3}+\frac{1}{7}+\frac{1}{8}+\frac{1}{15}+\frac{1}{24}+\frac{1}{26}+\frac{1}{31}+\frac{1}{35}\ldots$$

where the general term is of the form $\frac{1}{m^n-1}$ (*m* and *n* are arbitrary whole numbers). So the sequence in question is really a double sequence. Also certain infinite products will be discussed.

Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 160-188. According to the records, it was presented to the St. Petersburg Academy on April 25, 1727.
Reviewed in *Nova acta erud.* 1751 p. 655-656.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E73 Solutio Problematis geometrici circa lunulas a circulis formatas. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 207-221 + 2 diagrams.
According to the records, it was presented to the St. Petersburg Academy on September 16, 1737.
Reviewed in *Nova acta erud.* 1751 p. 658-660.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E74 De variis modis circuli quadraturam numeris proxime exprimendi. Auctore Leonh. Eulero.

About different methods to express π through infinite processes, and in particular about calculating π using the formula arctg x+arctg y=arctg $\frac{x+y}{1-xy}$.

Commentarii academiae scientiarum Petropolitanae 9, (1737), 1744, p. 222-236 (the last page was numbered 238 because of a printing error). According to the records, it was presented to the St. Petersburg Academy on February 20, 1738.
Reviewed in *Nova acta erud.* 1751 p. 660-662.
Extract published in *Arch. der Math.* 26, 1856, p. 350-351 (Grunert) [**E74a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E75 Solutio problematis, in Nov. Actorum Erud. Mense Novembri A. 1743 propositi, Auctore Leonh. Eulero.

It discusses the problem: "Invenire lineam curvam AMB, in cujus axe AB duo dentur ejusmodi puncta C & D, ut, ductis inde ad quodvis peripheriae punctum M rectis CM & DM, areae ACM ex puncto C resectae perpetuo sint proportionales angulis ADM, ad alterum punctum D formatis."
Nova acta eruditorum, 1744, p. 315-336 + 1 diagram. Euler had sent in the solution to the editorial staff of the journal sometime before April 25, 1744 (see his letter to Goldbach on this date; Fuss, *Corr.* I, p. 274).

Also see 1738 (E19a-23a).

E76 Novae et correctae tabulae ad loca lunae computanda. Berolini aere Michaelis 1745.

4^0, 16 pages. Specially printed extract from a treatise in *Opuscula varii argumenti* 1, 1746 (see E87).
Reviewed in *Nova acta erud.* 1746, p. 131-134.

E77 Neue Grundsätze der Artillerie enthaltend die Bestimmung der Gewalt des Pulvers nebst einer Untersuchung über der Unterscheid (!) des Wiederstands der Luft in schnellen und langsamen Bewegungen aus dem Englischen des Hrn. Benjamin Robins übersetzt und mit den nöthigen Erläuterungen und vielen Anmerkungen versehen von Leonhard Euler Königlichem Professor in Berlin. Berlin bey A. Haude Königl. und der Academie der Wissenschaften privil. Buchhändler. 1745.

Kgl. Library in Berlin.
Example used: G.E.
Small 8^0, (16) + 720 pages + 8 diagrams. The original appeared in 1742 in London under the title: New principles of gunnery. Euler wrote: a) the introduction (14 pages); b) Remarks p. 62-68, 73-75, 80-82, 84-86, 93-96, 98-99, 103-106, 122-153, 165-200, 218-253, 264-269, 279-369, 375-387, 399-410, 428-488, 495-522, 524-542, 549-603, 608-622, 631-685, 690-711, 714-720.
Reviewed in *Nouvelle bibliothèque Germanique* 3, 1747, p. 301-317 (A. Humbert); 4, 1748, p. 313-320.

E77A Translated into English: The true principles of gunnery investigated and explained. Comprehending translations of Professor Euler's observations upon the new principles of gunnery, published by the late Mr. Benjamin Robins, and that celebrated author's Discourse upon the track described by a body in a resisting medium, inserted in the memoirs of the Royal academy of Berlin for the year 1753. To which are added, many necessary explanations and remarks, together with Tables calculated for practice, the use of which is illustrated by proper examples; with the method of solving that capital problem, which requires the elevation for the greatest range with any given initial velocity. By Hugh Brown. London, printed for I. Nourse, Bookseller to His Majesty 1777.

British Museum.
Report by G. Valentin.
4^0, VII + (1) + 366 + (1) + XLVI pages+ 5 diagrams. There is probably a new edition of this translation from the year 1784.

E77B Translated into French: Noveaux pricipes d'artillerie de M. Benjamin Robins, commentés par M. Léonard Euler, traduits de l'allemand, avec des notes, par M. Lombard, professeur royal aux écoles d'artillerie à Auxonne. A Dijon, chez L. N. Frantin, imprimeur du roi. Et se trouve à Paris, chez Jombert fils aîné, libraire du roi, rue Dauphine, M.DCC.LXXXIII. Avec approbation et privilege du roi.

Kgl. Library in Berlin.
Example used: Bibl. Polytechn. Zürich.

8^0, (4) + XIV + (1) + 538 + X pages + 2 diagrams.

E78 Dissertation sur la meilleure construction du cabestan. Cette pièce est une des quatre entre lesquelles le prix double a été partagé.

Pièces qui ont remporté le prix de l'académie royale des sciences en M.DCC.XLI, (Paris 1745), p. 29-87. Motto:

Pressa momordit humum, superas nunc gaudet ad auras
Anchora judicio tendere nostra tuo.

Anonymous. It is indicated that this treatise was written by Euler in Rozier's general register of the writing of the Paris Academy of Science (part 4, Paris 1776, Art. Euler). The handwritten Latin original ("Dissertatio ad quaestionem de optimo modo anchoras attollendi ab ill. acad. Par. p. a. 1739 propositam") was deposited with the St. Petersburg Academy on July 3, 1738, according to the records, and can be found in Euler's estate. Also see letters about this treatise from D. Bernoulli to Euler from December 4, 1745 and January 4, 1746 (Fuss, *Corr.* II, p. 590, 595).
Republished in *Recueil des pièces qui ont remporté les prix de l'académie royale des sciences* 5, 1752, 29-87 [**78a**].

E79 Problema geometricum, propositum publice ab anonymo geometra.

The problem is: "Proposito puncto lucido F invenire omnes curvas AMBN hujus naturae, ut singuli radii ex F egressi post duplicem reflexionem in M et N in idem punctum F revertantur."
Nova acta eruditorum, 1745, p. 523 + 1 figure. It is known from his letter to Goldbach on February 16, 1745, that Euler wrote this problem (Fuss, *Corr.* I, p. 314).

1746.

E80 L. Euleri Opuscula varii argumenti. [The table of contents follows here on the title page] Berolini. Sumtibus Ambr. Haude & Jo. Carol. Speneri, bibliop. reg. & acad. scient. privil. 1746.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 300 pages + 6 diagrams. The 6 treatises of this volume are listed below (E86-91). Reviewed in *Nova acta erud.* 1748, p. 595-608. *Nouvelle bibliothèque Germanique* 8, 1751, p. 386-407. The two subsequent volumes are listed further below in 1750 (E121) and 1751 (E156).

E81 Gedancken von den Elementen der Cörper, in welchen das Lehr-Gebäude von den einfachen Dingen und Monaden geprüfet, und das wahre Wesen der Cörper entdeckt wird. Berlin bey A. Haude und Joh. C. Spener, Königl. und der Academie der Wissenschaften privil. Buchhändlern. 1746.

Kgl. Library in Berlin.
Example used: University Lib. in Basel.
4^0, 20 pages. Anonymous; it is given by N. Fuss in his *Èloge* that Euler is the author (St. Petersburg 1783, p. 75). This little piece gave rise to various pamphlets. For example, in 1746 a "Widerlegung der Gedancken" appeared in Frankfort and Leipzig (4^0, (2) +38 pages). In the same year there was also "Gegenseitige Prüfung der Gedancken" by C. A. K. … (4^0, 24 pages), in

Giessen in 1747 “Anmerkungen über die Gedancken” by H. E. Nebel, and in Leipzig in 1747 a detailed “Prüfung der Gedancken” (4^0, (2) + 70 pages).
Criticism in *Dissertation qui a remporté le prix proposé par l'académie royale des sciences et belles lettres sur le système des monades avec les pièces qui ont concouru* (Berlin 1748), p. 230-248.

E82 De la force de percussion et de sa véritable mesure, par Mr. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [1][3], (1745), 1746, p. 21-53 + 1 diagram.
According to the remark at the top of the abstract, it was presented to the Berlin Academy on June 4, 1744.
Abstract reprinted with the title “Sur le choc et la pression” in *Hist. de l'acad. d. sc. de Berlin* [1], (1745), 1746, p. 25-28.
Reviewed in *Nova acta erud.* 1748, p. 461-464.
Abstract: *Collection académique* (Dijon and Paris) 8, 1770, p. 29-31 [**82a**].

E83 Sur quelques propriétés des sections coniques, qui conviennent à un infinité d'autres lignes courbes. Par M^r. Euler. Traduit du Latin.

Analytical solutions for geometric problems. The first is: “Trouver la courbe AMF rapportée à l'axe AD, qui à la distance DE donnée de l'axe ait le diamètre FEG parallèle à l'axe AD, qui coupe en deux toutes les ordonnées Mm tirées avec l'axe à l'angle donné T.”
Mémoires de l'académie des sciences de Berlin [1], (1745), 1746, p. 71-98 + 3 diagrams.
According to C. G. J. Jacobi, a treatise with this title (in Latin) was presented to the Berlin Academy on September 6, 1742.
Abstract: *Hist. de l'acad. d. sc. de Berlin* [1], (1745), 1746, p. 53.
Reviewed in *Nova acta erud.* 1748, p. 461-466.

E84 Leonh. Euleri Animadversio ad libri praecedentis §83 & seq. de curvis elasticis.

Nova acta eruditorum, 1746, p. 92-95 + 1 figure. The book mentioned in the title is: “Methodus inveniendi lineas curvas maximi minimive proprietate gaudentes.”

E85 L. E. Solutio problematis catoptrici, in his Actis A. 1745 Mense Septembri P. I. pag. 523 propositi.

About the problem from 1745 (E79).
Nova acta eruditorum, 1746, p. 230-233 + 1 diagram. According to P.H. Fuss, a detailed treatise on this subject can be found in Euler's papers which appears to be the first outline of the solution (*Commentat. arithm.* 1, p. XII). Also see 1748 (E106) and 1843 (E787).

E86 De motu corporum in superficiebus mobilibus.

[3] The volumes of the Berlin journal have no volume numbers on the title page. Instead, they are usually found in the inscription.

Opuscula varii argumenti, 1, 1746, p. 1-136 + 4 diagrams. The title "Solutio problematis mechanici de motu corporum tubis mobilibus inclusorum" is given on the title page of the "Opuscula."

E87 Tabulae astronomicae solis & lunae.

Opuscula varii argumenti, 1, 1746, p. 137-168. The title "Novae tabulae astronomicae motuum solis ac lunae" is given on the title page of the "Opuscula." A special edition of a part of this treatise appeared in 1745 (see E76 above). There was probably also a special edition of the entire treatise (see Fuss, *Corr.* I, p. CXIII).

E88 Nova theoria lucis & colorum.

Opuscula varii argumenti, 1, 1746, p. 169-244 + 6 figures. According to the remark at the top of the first page of the abstract, a treatise with this title was read to the Berlin Academy on February 6, 1744, but only the abstract appeared in French ("Sur la lumière et les couleurs") in *Hist. de l'acad. d. sc. de Berlin* [1] (1745), 1746, p. 17-24.
Abstract reprinted in *Collection acadèmique* (Dijon and Paris) 8, 1770, p. 24-29 [**88a**].
Abstract reprinted in *Œuvres complètes d'Euler* 2, 1839, p. 303-309 [**88b**].

E88A Translated into French: Nouvelle théorie de la lumière et des couleurs.

Œuvres complètes d'Euler 2, 1839, p. 362-417.

E88B An extract was translated into German: Auszug aus Herrn Eulers Neuer Theorie des Lichts und der Farben, welche in dessen 1746 herausgekommen Opusculis varii argumenti die dritte Stelle einnimmt.

Hamburgerisches Magazin 6, 1750, p. 156-197.

E89 De relaxione motus planetarum.

Opuscula varii argumenti 1, 1746, p. 245-276 + 2 figures. The title "De perturbatione motus planetarum a resistentia aetheris orta" is given on the title page of the "Opuscula."

E90 Enodatio quaestionis: Utrum materiae facultas cogitandi tribui possit nec ne? ex principiis mechanicis petita.

Opuscula varii argumenti 1, 1746, p. 277-286. The title "Enodatio quaestionis: An materiae facultas cogitandi tribui possit?" is given on the title page of the "Opuscula."
Reviewed in *Nouvelle bibliothèque Germanique* 8, 1751, p. 387-397.

E91 Recherches physiques sur la nature des moindres parties de la matière.

Opuscula varii argumenti 1, 1746, p. 287-300. The title "Recherches sur la nature des moindres particules des corps" is given on the title page of the "Opuscula." According to the remark at the top of the first page of the abstract, a treatise with this title was presented to the Berlin Academy on June 18, 1744, but only the abstract ("Sur la nature des moindres particules de la matière") appeared in the *Hist. de l'acad. d. sc. de Berlin* [1] (1745), 1746, p. 28-32.
Reviewed in *Nouvelle bibliothèque Germanique* 8, 1751, p. 397-407.
Reprinted in *Œuvres complètes d'Euler* 2, 1839, p. 263-274 [**91a**].
Abstract reprinted in *Collection acadèmique* (Dijon and Paris) 8, 1770, p. 31-34 [**91b**].

Also see 1726 (E1a), 1727 (E3a), 1733 (E11a), 1750 (E138a), 1751 (E 174a), 1862 (E 836a).

1747.

E92 Rettung der göttlichen Offenbahrung gegen die Einwürfe der Freygeister. Berlin, bey A. Haude und Joh. Carl Spener 1747.

Kgl. Library in Berlin.
Report by G. Valentin.
8^0, 46 pages. – Anonymous; N. Fuss indicates that Euler is the author in his *Èloge* (St. Petersburg 1783, p. 75).

E92^2 Eulers Rettung der gottlichen Offenbarung gegen die Einwürfe der Freygeister. Mit Erlaubniss der früheren Verlagshandlung aufs Neue zu Tage gefördert und mit einem Vorwort herausgegeben von Karl Dielitz. Berlin, Grobe 1844.

University Lib. in Munich.
According to Kaysers Bücher-Lexicon.
8^0, 32 pages.

E92^3 Rettung der göttlichen Offenbahrung gegen die Einwürfe der Freygeister.

Kgl. Library in Berlin.
Example used: Polytechn. Lib. in Zurich.
K. R. Hagenbach, *Leonhard Euler als Apologet des Christentums.* Invitation to the promotion celebration of the Pedagogy on April 28, 1851 (Basel 1851), p. 9-30; with notes from Rud. Merian p. 31-32.

E92A Translated into Italian: Saggio di una difesa della divina rivelazione di Leonardo Euler, tradotto dall' idioma tedesco. Coll' aggiunta dell' esame dell' argomento dedotto dall' abbreviamento dell' anno solare, e planetario. Pavia, G. Bolzani, 1777.

University Lib. in Pavia.
Report by G. Vivanti.
8^0, (8) + 62 + (10) pages. Translated by G. Fontana according to the dedication.

E92A^2 Saggio di una difesa della divina rivelazione di Lionardo Euler tradotto dall' idioma tedesco. Seconda edizione riveduta ed illustrata con prefazione, e con note da Niccola Onorati

frate min. osserv. Per uso della r. accademia militare. Napoli MDCCLXXXVII. Presso Guiseppe Maria Porcelli libraio e stampatore della reale acc. militare con licenza de' superiori.

Kgl. Library in Berlin.
Report by F. Amodeo.
8^0, XXXII + 94 pages. Pages 48-90 contain the publisher's notes.

E92A[3] Saggio di una difesa della divina rivelazione di Lionardo Eulero tradotto dall' idioma tedesco. Editione terza. Riveduta ed illustrata con prefazione, e con note da Niccola Onorati min. osserv. lett. giub. in s. teol. exprov. p. p. nell' università di Napoli e socio di diverse accademie. Napoli MDCCCXV. Presso Angelo Trani.

University Lib. in Naples.
Report by F. Amodeo.
8^0, XXXII+ 94 pages.

E92B Translated into French: Défense de la révélation contre les objections des esprits forts par Léonard Euler. Suivie des Pensées de cet auteur sur la religion, supprimées dans la dernière édition de ses Lettres à une princesse d'Allemagne. Paris, Leclerc an XIII (1805).

According to J. M. Quèrard.
8^0. Published by Emery. There may be earlier editions of this translation.

E92B[2] Défense de la révélation contre les objections des esprits forts par Léonard Euler. Nouvelle édition suivie des Pensées de cet auteur sur la religion, supprimées dans la dernière édition de ses Lettres à une princesse d'Allemagne. Montpellier, A. Séguin 1825.

According to J. M. Quèrard.
12^0. A Paris 1834 edition is also mentioned occasionally.

E93 Disquisitio de bilancibus. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 3-18 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on February 6, 1738. Reviewed in *Nova acta erud.* 1752, p. 56-57.

E94 De motu cymbarum remis propulsarum in fluviis. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 22-39 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on March 3, 1738. Reviewed in *Nova acta erud.* 1752, p. 58.

E95 De aequationibus differentialibus quae certis tantum casibus integrationem admittunt. Auctore L. Eulero.

Euler starts with a second-order linear differential equation with simple, rational coefficients and figures out which cases of this quantity, divided by infinite sequences, produce a quotient that can be integrated. Then he derives a

first-order differential equation out of the given equation and gets a new integrable equation in this way. The Riccati differential equation appears as a special case.
Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 40-55. According to the records, it was presented to the St. Petersburg Academy on February 17, 1738.
Reviewed in *Nova acta erud.* 1752, p. 58-60.

E96 De machinarum tam simplicium quam compositarum usu maxime lucroso. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 67-94 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on March 27, 1738.
Reviewed in *Nova acta erud.* 1752, p. 61-69. *Nouvelle bibliothèque Germanique* 6, 1750, p. 309-317.

E97 De attractione corporum sphaeroidico-ellipticorum. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 102-115 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on May 5, 1738.
Reviewed in *Nova acta erud.* 1752, p. 70.

E98 Theorematum quorumdam (!) arithmeticorum demonstrationes. Auctore L. Eulero.

It is proven, that in certain cases the sum or difference of two whole numbers is not a square, for example, if both numbers are biquadratic.
Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 125-146. According to the records, it was presented to the St. Petersburg Academy on June 23, and August 16 (Additions), 1738.
Reviewed in *Nova acta erud.* 1752, p. 72.
Reprinted in *Commentat. arithm.* 1, 1849, p. 24-34 [**98a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E99 Solutio problematis cujusdam a celeb. Dan. Bernoullio propositi. A. L. Euler.

It discusses the following problem: "Inter omnes curvas isoperimetricas iisdem terminis contentas eam determinare, in qua $\int r^m ds$ habeat maximum minimumve valorem, denotantibus s arcum curvae, r vero ejus radium osculi."
Commentarii academiae scientiarum Petropolitanae 10, (1738), 1747, p. 164-180. According to the records, it was presented to the St. Petersburg Academy on September 9, 1738. The problem, that was put forward by Bernoulli on May 24, 1738 (see Fuss, *Corr.* II, p. 448), had been solved by Euler by July 30, 1738 (see his letter to Johann Bernoulli on this date; *Bibl. math.* 5_3, 1904, p. 284).
Reviewed in *Nova acta erud.* 1752, p. 72-73.

E100 L. E. De numeris amicabilibus, 1747

Nova acta eruditorum, 1747, p. 267-269.
Reprinted in *Commentat. arithm.* 2, 1849, p. 637-638 [**100a**].

1748.

E101 Introductio in analysin infinitorum. Auctore Leonhardo Eulero, professore regio Berolinensi, & academiae imperialis scientiarum Petropolitanae socio. Tomus primus. Lausannae, apud Marcum-Michaelem Bousquet & socios. MDCCXLVIII.

Kgl. Library in Berlin.
Example used: G.E.
4^0, Engraving + Portrait (Mairan) + (2) + XVI + 320 pages + 1 table. In addition to Bousquet's "Epistola dedicatoria" and Euler's "Praefatio," it contains 18 chapters: 1. De functionibus in genere. 2. De transformatione functionum. 3. De transformatione functionum per substitutionem. 4. De explicatione functionum per series infinitas. 5. De functionibus duarum pluriumve variabilium. 6. De quantitatibus exponentialibus ac logarithmis. 7. De quantitatum exponentialium ac logarithmorum per series explicatione. 8. De quantitatibus transcendentibus ex circulo ortis. 9. De investigatione factorum trinomialium. 10. De usu factorum inventorum in definiendis summis serierum infinitarum. 11. De aliis arcuum atque sinuum expressionibus infinitis. 12. De reali functionum fractarum evolutione. 13. De seriebus recurrentibus. 14. De multiplicatione ac divisione angulorum. 15. De seriebus ex evolutione factorum ortis. 16. De partitione numerorum. 17. De usu serierum recurrentium in radicibus aequationum indagandis. 18. De fractionibus continuis. Euler's letter to d'Alembert on September 28, 1748 indicates that this work was already completed in 1745 (see *Bullet. di bibliogr. d. sc. matem.* 19, 1886, p. 145); also see the letter from Euler to Goldbach on August 6, 1748 (Fuss, *Corr.* I, p. 473) and the letter from Bernoulli to Euler in the beginning of 1745 (Fuss, *Corr.* II, p. 569).
Reviewed in *Nova acta erud.* 1751, p. 222-235 (also discusses the second volume). *Nouvelle bibliothèque Germanique* 7:1, 1750, p. 17-26 (also discusses the second volume).
An English translation of §§140-141 (p. 105-107) was published by F. Masères in *Scriptores logarithmici 3*, London 1796, p. 169-182 ("Euler's method of squaring the circle") [**E101a**].
Continued in E102.

E101² Introductio in analysin infinitorum. Auctore Leonhardo Eulero, professore regio Berolinensi, & academiae imperialis scientiarum Petropolitanae socio. Editio nova. Tomus primus. Lugduni, apud Bernuset, Delamolliere, Falque & soc. 1797.

Kgl. Library in Berlin.
Example used: G.E.
4^0, XVI + 320 pages.
Continued in E102².

E101A Translated into French: Introduction à l'analyse des infiniment petits de M. Euler. Traduite du latin. Première partie. [5 printed lines of the table of contents follow here.] Par M. Pezzi. Précédée de l'éloge de M. Euler prononcé à la rentrée de l'académie royale des sciences le 6 février 1785 par M. le marquis de Condorcet … A Strasbourg aux dépens de la librairie académique 1786. Avec approbation & privilège du roi.

Example used: G.E.
8^0, Portait + (6) + IV + 44 + XII + 364 + (2) pages. After the foreword, the second part should have been translated by Kramp, and there is a second title page: "Introduction à l'analyse des infiniment petits de M. Euler traduite du latin par MM. Pezzi et Kramp", but this second part does not appear to have been printed; in any case, I have seen no examples of it.
Reviewed in *N. Leipz. gel. Zeit.* 1786: 4, p. 2369, 2390. *Allg. Lit. Zeit.* 1787: 4, p. 196-198. *Götting. gel. Anz.* 1787, p. 793-795 (Kästner).

E101A² Introduction à l'analyse infinitésimale, par Léonard Euler; traduite du latin en français, avec des notes & des éclaircissements, par J. B. Labey, professeur de mathématiques aux écoles centrales du département de la Seine. Tome premier. A Paris, chez Barrois, aîné, libraire, rue de Savoye, $n^0$23. L'an quatrième de la république française. (1796).

Example used: Polytechn. Lib. in Zurich.
4^0, XIV + (2) + 364 pages. Pages 305-364 contain "Notes et éclaircissements."
Continued in E102A.

E101A³ Introduction à l'analyse infinitésimale par Léonard Euler; traduite du latin en français, avec des notes et des éclaircissemens, par J. B. Labey, professeur de mathématiques aux écoles centrales du département de la Seine. Tome premier. (Imprimé en 1797.) Paris, Bachelier 1835.

Example used: G.E.
4^0, XIV + (2) + 364 pages. This is only a new printing, as indicated in the title.
Continued in E102A².

E101B Translated into German: Leonhard Eulers Einleitung in die Analysis des Unendlichen. Aus dem Lateinischen übersetzt und mit Anmerkungen und Zusätzen begleitet von Johann Andreas Christian Michelsen, Professor der Mathematik und Physik am vereinigten Berlinischen und Cölnischen Gymnasium. Erstes Buch. Berlin, bey Carl Matzdorff 1788.

Kgl. Library in Berlin.
Example used: G.E.
8^0, XXIV + 626 + (3) pages + 2 tables (on p. 348, 620-621.) There are examples that have "Berlin, bey Sigismund Friedrich Hesse 1788" on the title page.
Reviewed in *Allg. Lit. Zeit.* 1789: I, p. 97-99 (also discusses the second volume). *Allg. deutsche Bibl.* 95:2, 1790, p. 315-329; 104:2, 1791, p. 428-429 (also discusses the second volume). *Goth. gel. Zeit.* 1789: I, p. 52.
Continued in E102B.

E101B² Leonhard Eulers Einleitung in die Analysis des Unendlichen. Aus dem Lateinischen übersetzt und mit Anmerkungen und Zusätzen begleitet von Johann Andreas Christian Michelsen. Erstes Buch. [5 printed lines of the table of contents follow here.] Neue unveränderte berichtigte Auflage. Berlin, Reimer 1835.

Kgl. Library in Berlin.
Example used: G.E.
8^0, XVI + 456 pages + 1 table.
Continued in E102B².

E101B[3] Einleitung in die Analysis des Unendlichen. Von Leonhard Euler. Erster Teil. Ins Deutsche übertragen von H. Maser. Berlin, Springer 1885.

Kgl. Library in Berlin.
Example used: G.E.
8^0, X + (1) + 319 pages.

E102 Introductio in analysin infinitorum. Auctore Leonhardo Eulero, professore regio Berolinensi, & academiae imperialis scientiarum Petropolitanae socio. Tomus secundus. Lausannae, apud Marcum-Michaelem Bousquet & socios. MDCCXLVIII.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 398 + (1) pages + 40 diagrams. Contains 22 chapters: 1. De lineis curvis in genere. 2. De coordinatarum permutatione. 3. De linearum curvarum algebraicarum in ordines divisione. 4. De linearum cujusque ordinis praecipuis proprietatibus. 5. De lineis secundi ordinis. 6. De linearum secundi ordinis subdivisione in genera. 7. De ramorum in infinitum excurrentium investigatione. 8. De lineis asymptotis. 9. De linearum tertii ordinis subdivisione in species. 10. De praecipuis linearum tertii ordinis proprietatibus. 11. De lineis quarti ordinis. 12. De investigatione figurae linearum curvarum. 13. De affectionibus linearum curvarum. 14. De curvatura linearum curvarum. 15. De curvis una pluribusve diametris praeditis. 16. De inventione curvarum ex datis applicatarum proprietatibus. 17. De inventione curvarum ex aliis proprietatibus. 18. De similitudine et affinitate linearum curvarum. 19. De intersectione curvarum. 20. De constructione aequationum. 21. De lineis curvis transcendentibus. 22. Solutio nonnullorum problematum ad circulum pertinentium. Pages 321-398 contain an "Appendix de superficiebus" which consists of the following 6 chapters: 1. De superficiebus corporum in genere. 2. De sectionibus superficierum a planis quibuscunque factis. 3. De sectionibus cylindri, coni et globi. 4. De immutatione coordinatum. 5. De superficiebus secundi ordinis. 6. De superficierum intersectione mutua.
Reviewed in *Nova acta erud.* 1751, (see E101). *Nouvelle bibliothèque Germanique* 7:1, 1750 (see E101).
On January 8, 1781, M. Golovin presented the manuscript of a Russian translation of the first six chapters to the St. Petersburg Academy, but this translation does not appear to have been published.
Also see E101.

E102[2] Introductio in analysin infinitorum. Auctore Leonhardo Eulero, professore regio Berolinensi, et academiae imperialis scientarum Petropolitanae socio. Editio nova. Tomus secundus. Lugduni, apud Bernuset, Delamolliere, Falque & soc. 1797.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 398 pages + 14 diagrams.
Also see E101[2].

E102A Translated into French: Introduction à l'analyse infinitésimale, par Léonard Euler; traduite du latin en français, avec des notes & des éclaircissements, par J. B. Labey, professeur de mathématiques aux écoles centrales du département de la Seine. Tome second. A Paris, chez Barrois, aîné, libraire, rue de Savoye, n^{0}23. L'an cinquième de la république française (1797).

Example used: Bibl. Polytechn. Zürich.
4^0, (12) + 424 pages + 16 diagrams. Pages 404-424 contain "Notes et èclaircissements."
Also see E101A^2.

E102A^2 Introduction à l'analyse infinitésimale, par Léonard Euler; traduite du latin en français, avec des notes et des éclaircissemens, par J. B. Labey, professeur de mathématiques aux écoles centrales du département de la Seine. Tome second. (Imprimé en 1797). Paris, Bachelier 1835.

Example used: G.E.
4^0, (4) + 424 pages + 16 diagrams. Only the title page and the table of contents are newly printed.
Also see E101A^3.

E102B Translated into German: Leonhard Eulers Einleitung in die Analysis des Unendlichen. Aus dem Lateinischen übersetzt und mit Anmerkungen und Zusätzen begleitet von Johann Andreas Christian Michelsen, Professor der Mathematik und Physik am vereinigten Berlinischen und Cölnischen Gymnasium. Zweytes Buch. Mit Kupfern. Berlin, bey Carl Matzdorff 1788.

Kgl. Library in Berlin.
Example used: G.E.
8^0, (VI) + 578 pages + 8 diagrams. Apparantly the volume contains VIII + 578 pages, but that counts the numbers for the title pages twice, once as pages I and II, and once as pages 1 and 2. There are examples that have "Berlin, bey Sigismund Friedrich Hesse 1788" on the title page. Reviewed in *Allg. Lit. Zeit.* 1789 (see E101). *Allg. deutsche Bibl.* 95:2, 1790; 104:2, 1791, (see E101). Also see E101B.
In 1791, Michelsen published a so-called "Drittes Buch" of his translation, but this book doesn't have anything to do with the "Introductio." It actually contains translations of other pieces by Euler and Lagrange (see 1738, E30A; 1764, E282A).

E102B^2 Leonhard Eulers Einleitung in die Analysis des Unendlichen. Aus dem Lateinischen übersetzt und mit Anmerkungen und Zusätzen begleitet von Johann Andreas Christian Michelsen. Zweites Buch. Die Theorie der krummen Linien, nebst einem Anhange von den Oberflächen. Mit Kupfern. Neue unveränderte berichtigte Auflage. Berlin, Reimer 1836.

Kgl. Library in Berlin.
Example used: G.E.
8^0, VIII + 392 pages + 8 diagrams.
Also see E101B^2.

E103 Recherches physiques sur la cause de la queüe (!) des comètes, de la lumière boréale, et de la lumière zodiacale, par Mr. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [2], (1746), 1748, p. 117-140 + 2 diagrams. The presentation date is unknown.

Reviewed in *Nova acta erud.* 1750, p. 600-601. *Nouvelle bibliothèque Germanique* 5, 1749, p. 14-16.
Reprinted in *Œuvres complètes d'Euler* 2, 1839, p. 344-361 [**E103a**].

E104 Mémoire sur l'effet de la propagation successive de la lumière dans l'apparition tant des planètes que des comètes. Par Mr. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [2], (1746), 1748, p. 141-181 + 2 diagrams. The presentation date is unknown.
Reviewed in *Nouvelle bibliothèque Germanique* 5, 1749, p. 16-17.

E105 Mémoire sur la plus grande équation des planètes, par Mr. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [2], (1746), 1748, p. 225-248. The presentation date is unknown.
Reviewed in *Nouvelle bibliothèque Germanique* 5, 1749, p. 18-19.

E106 L. E. Solutio problematis catoptrici, in Novis Actis Eruditorum Lipsiensibus pro Mense Novembri A. 1745 propositi.

On the problem listed above in the note for E85 (1746).
Nova acta eruditorum, 1748, p. 27-46, 61-75, 169-184 + 3 diagrams.

E107 Extract of a letter from Mr. Leonhard Euler, prof. mathem. and member of the imperial society at Petersburgh, to the rev. Mr. Cha. Wetstein, chaplain and secretary to his royal highness the prince of Wales, concerning the discoveries of the Russians on the north-east coast of Asia.

Philosophical Transactions (London) 44:2, (1747), 1748, p. 421-423. According to the note on p. 421, the letter is dated December 10, 1746 and was presented to the "Royal Society" on February 5, 1747.

E108 De observatione inclinationis magneticae dissertatio, illustrissimae academiae regiae scientiarum Parisinae aequissimo judicio, pro anno 1743. submissa … A. DD. Euler, matheseos professore, è societate academiae imperialis Petropolitanae.

Pièces qui ont remporté le prix de l'académie royale des science en M.DCC.XLIII. et M.DCC.XLVI (Paris 1748), p. 63-96 (first pagination) + 1 diagram. Motto on the title page: "Nihil turpius est physico, quam fieri sine causa quicquam dicere." Also see the letter from Euler to Goldbach on August 28, 1742 (Fuss, Corr. I, p. 144).
Republished in *Recueil des pièces qui ont remporté le prix de l'académie royale des science* 5, 1752, p. 63-96 + 1 diagram [**E108a**].

E108A Translated into French: Dissertation sur l'inclinaison de l'aiguille aimantée.

Œuvres complètes d'Euler 2, 1839, p. 462-490.

E109 Dissertatio de magnete. Cette pièce est une des trois entre lesquelles le prix triple a été partagé … A. DD. Euler, matheseos professore, è societate academiae imperialis Petropolitanae.

Pièces qui ont remporté le prix de l'académie royale des science en M.DCC.XLIII. et M.DCC.XLVI, (Paris 1748), p. 1-47 (second pagination) + 1 diagram. Motto on the title page: "Quaerendi defatigatio turpis est, cum id, quod quaeritur, sit pulcherrimum. Cic. de fin. bon. et mal."
Republished in *Recueil des pièces qui ont remporté le prix de l'académie royale des science* 5, 1752, p. 1-47 + 1 diagram [**E109a**].
Reprinted in *Opuscula* [*varii argumenti*] 3, 1751, p. 1-53 + 2 diagrams [**E109b**].

E109A Translated into French: Dissertation sur l'aimant et ses propriétés.

Œuvres complètes d'Euler 2, 1839, p. 418-461.

Also see 1740 (E36a-45a), 1749 (E113a, 117a), 1750 (E133a-137a, 138b, 139a).

1749.

E110 Scientia navalis seu tractatus de construendis ac dirigendis navibus Pars prior complectens theoriam universam de situ ac motu corporum aquae innatantium. Auctore Leonhardo Euler prof. honorario academiae imper. scient. et directore acad. reg. scient. Borussicae. Instar supplementi ad tom. I. novorum commentar. acad. scient. imper. Petropoli typis academiae scientiarum MDCCXLIX.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 44 + (1) + 444 pages + 37 diagrams. In addition to the dedication (to Graf Rasumowski), which is dated January 25, 1749, it contains 7 chapters: 1. De aequilibrio corporum aquae insidentium. 2. De corporum aquae insidentium restitutione in aequilibrium. 3. De stabilitate qua corpora aquae incidentia in situ aequilibrii persistunt. 4. De effectu virium corpora aquae insidentia sollicitantium. 5. De resistentia quam figurae planae in aqua motae patiuntur. 6. De resistentia, quam corpora quaecunque in aqua motu directo lata patiuntur. 7. De motu progressivo corporum aquae innatantium. This piece was essentially completed by 1738 (see the letter from Euler to Johann Bernoulli on December 20, 1738; *Bibl. math.* 5_3, 1904, p. 287).
Reviewed in *Nova acta erud.* 1754, p. 584-593. *Nouvelle bibliothèque Germanique* 8:1, 1751, p. 26-55 (also discusses the second volume).
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.
Continued in E111.

E110A Russian translation of the introduction: Письмо Леонарда Эйлера изъ Берлина 25-го Генваря 1749 года, президенту академіи наукъ графу Кириллу Григорьичу Разумовскому, съ изложеніемь содержанія написаннаго по порученію акалеміи сочиненія: Scientia navalis seu tractatus de construendis ac dirigendis navibus. Pars I et II. In-4^0. Перев. съ французскаго.

4^0, 51 pages. No title page. According to Bobynin's Russian physicist/mathematician bibliography 1:3 (1890), p. 15. There is a complete Russian translation: Трактатъ о корабельной наукѣ, which allegedly appeared in 1749, according to older Russian bibliographies, but I can't be certain of this without further investigation (see Bobynin, *a. a. O.* p. 16).

E111 Scientia navalis seu tractatus de construendis ac dirigendis navibus Pars posterior in qua rationes ac praecepta navium construendarum et gubernandarum fusius exponuntur auctore Leonhardo Euler prof. honorario academiae imper. scient. et directore acad. reg. scient. Borussicae. Instar supplementi ad tom. I. novorum commentar. acad. scient. imper. Petropoli typis academiae scientiarum MDCCXLIX.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 534 pages + 28 diagrams. Contains 11 chapters: 1. De navibus in genere. 2. De situ aequilibrii navium. 3. De stabilitate situs aequilibrii. 4. De motu navium oscillatorio. 5. De inclinatione, quam naves a viribus quibuscunque patiuntur. 6. De actione gubernaculi. 7. De actione remorum. 8. De constructione navium remis propellendarum. 9. De vi, quam ventus in vela exerit. 10. De malorum constitutione. 11. De cursu navium obliquo.
Reviewed in *Nova acta erud.* 1755, p. 252-267. *Nouvelle bibliothèque Germanique* 8:1, 1751 (see E110).
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.
Also see E110.

E112 Recherches sur le mouvement des corps célestes en général. Par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 93-143 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on June 8, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1750, p. 644-646. *Nouvelle bibliothèque Germanique* 6, 1750, p. 244-245.

E113 Méthode pour trouver les vrais momens tant des nouvelles que des pleines lunes, par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 154-173.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 21, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi; the last 10 pages of this manuscript are not printed in the "Mémoires."

Reviewed in *Nova acta erud.* 1750, p. 646. *Nouvelle bibliothèque Germanique* 6, 1750, p. 245-246.
Preliminary extract: *Vollständiger astronomischer Calendar auf das Jahr 1748*, (Berlin 1748), Bl. N 3b [**E113a**].

E114 Méthode de trouver le vrai lieu géocentrique de la lune par l'observation de l'occultation d'une étoile fixe. Par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 174-177 + 1 diagram. The presentation date is unknown.

E115 Méthode de déterminer la longitude des lieux par l'observation d'occultations des étoiles fixes par la lune.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 178-179. An author is not specified at the beginning of this piece, but according to the table of contents, it was written by Euler. The presentation date is unknown.

E116 Mémoire sur la force des rames. Par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 180-213 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 23, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1750, p. 647-648. *Nouvelle bibliothèque Germanique* 6, 1750, p. 246-247.

E117 Réflexions sur la dernière éclipse du Soliel du 25 julliet a. 1748. Par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 250-273 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 12, 1748.
Reviewed in *Nova acta erud.* 1750, p. 648. *Nouvelle bibliothèque Germanique* 6, 1750, p. 247.
Preliminary extract: *Vollständiger astronomischer Calendar auf das Jahr 1748*, (Berlin 1748), Bl. N 3a [**E117a**].

E118 Sur la perfection des verres objectifs des lunettes, par Mr. Euler.

Mémoires de l'académie des sciences de Berlin [3], (1747), 1749, p. 274-296 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 27, 1748. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1750, p. 648-650. *Nouvelle bibliothèque Germanique* 6, 1750, p. 248.

E119 De vibratione chordarum exercitatio, autore L. Eulero.

Nova acta eruditorum, 1749, p. 512-527 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on May 16, 1748. For an almost verbatim French translation, see 1750 (E140).

E120 Recherches sur la question des inégalités du mouvement de Saturne et de Jupiter, suject proposé pour le prix de l'annèe 1748, par l'académie royale des sciences de Paris…Par M. Euler, professeur royal de mathématiques à Berlin, de lacadémie impériale de S. Pétersbourg & des sociétés royales d'Angleterre & de Prusse.

Pièce qui a remporté le prix de l'académie royale des sciences en M.DCC.XLVII. sur les inégalités du mouvement de Saturn et de Jupiter (Paris, Martin, Coignard & Guerin 1749), p 1-123 + 2 tables + 1 diagram. Motto on the title page:

Ponderibus librata suis per inane profundum
Sidera, quo vis alma trahit retrahitque sequuntur.

There are examples that have "Paris, chex Delatour" on the title page. The treatise was finished before the end of 1747 (see Euler's letter to Goldbach on October 24, 1747; Fuss, *Corr.* II, p. 437). This treatise is sometimes found sewn onto the end of the 6th volume (1752) of *Recueil des pièces qui ont remporté le prix de l'académie royale des science.*

1750.

E121 Conjectura physica circa propagationem soni ac luminis una cum aliis dissertationibus analyticis De numeris amicabilibus De natura aequationum, ac De rectificatione ellipsis. Auctore Leonhardo Eulero. Berolini, sumtibus Ambr. Haude viduae et Joh. Carol. Speneri, bibliopol. reg. et acad. scient. privil. 1750.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 166 pages + diagram. The individual pages bear the inscription: "Euleri Opuscula Tom. II," and the volume is generally cited as "Opuscula varii argumenti Bd. 2." The four treatises of the volume are listed below (E151-154).
Reviewed in *Nova acta erud.* 1756, p. 439-446. *Hamburgisches Magazin* 8, 1751, p. 271-277. (A. G. Kästner).
Also see 1746 (E80), and 1751 (E156).

E122 De productis ex infinitis factoribus ortis. Auctore L. Eulero.

Infinite products will be processed using certain integrals, such as the beta-function.
Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 3-31. According to the records, it was presented to the St. Petersburg Academy on January 12, 1739.
Reviewed in *Nova acta erud.* 1753, p. 302-303.

E123 De fractionibus continuis observationes. Auctore Leonh. Eulero.

The worth of certain continued fractions will be described by a certain integral or as the solution to a differential equation.
Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 32-81. According to the records, it was presented to the St. Petersburg Academy on January 22, 1739.
Reviewed in *Nova acta erud.* 1753, p. 303.

E124 Determinatio caloris et frigoris graduum pro singulis terrae locis ac temporibus.

Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 82-99 + 2 figures. An author is not specified at the beginning of this piece, but according to the table of contents, it was written by Euler. According to the records, it was presented to the St. Petersburg Academy on February 16, 1739.
Reviewed in *Nova acta erud.* 1753, p. 303-305.

E125 Consideratio progressionis cujusdam ad circuli quadraturam inveniendam idoneae. Auctore L. Eulero.

Elementary derivation of a semi-convergent series for arctan, which is a special case of the Euler Summation Formula.
Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 116-127. According to the records, it was presented to the St. Petersburg Academy on March 23, 1739.
Reviewed in *Nova acta erud.* 1753, p. 306
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E126 De novo genere oscillationum. Auctore Leonh. Eulero.

The oscillation in question is a generalization of the ocean's ebb and flow with the tide.
Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 128-149 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on December 4, 1738, and again on March 30, 1739. The beginning of the treatise indicates that it was inspired by a piece presented by G. W. Krafft on December 4, 1738, so the second presentation date must be more accurate.
Reviewed in *Nova acta erud.* 1753, p. 306-307.

E127 Explicatio phaenomenorum quae a motu lucis successivo oriuntur. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 150-193 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on May 25, 1739.
Reviewed in *Nova acta erud.* 1753, p. 307-308.

E128 Methodus facilis computandi angulorum sinus ac tangentes tam naturales quam artificiales. Auctore Leonhardo Eulero.

Commentarii academiae scientiarum Petropolitanae 11, (1739), 1750, p. 194-230. According to the records, it was presented to the St. Petersburg Academy on December 15, 1739.
Reviewed in *Nova acta erud.* 1753, p. 308.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E129 Investigatio curvarum quae evolutae sui similes producunt. A. L. Eulero.

Commentarii academiae scientiarum Petropolitanae 12, (1740), 1750, p. 3-52 + 12 figures.
According to the records, it was presented to the St. Petersburg Academy on August 20, 1739.
Reviewed in *Nova acta erud.* 1754, p. 64-66.

E130 De seriebus quibusdam considerationes. Auctore Leonh. Eulero.

About the sequence of negative integer powers of the natural numbers, and related series.
Commentarii academiae scientiarum Petropolitanae 12, (1740), 1750, p. 53-96. According to the records, it was presented to the St. Petersburg Academy on October 22, 1739.
Reviewed in *Nova acta erud.* 1754, p. 66.

E131 Emendatio tabularum astronomicarum per loca planetarum geocentrica. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 12, (1740), 1750, p. 109-221 + 2 figures.
According to the records, it was submitted to the St. Petersburg Academy on March 28, 1740.
Reviewed in *Nova acta erud.* 1754, p. 67-74.

E132 Methodus viri celeberrimi Leonh. Euleri determinandi gradus meridiani pariter ac paralleli telluris, secundum mensuram a celeb. de Maupertuis cum sociis institutam.

Commentarii academiae scientiarum Petropolitanae 12, (1740), 1750, p. 224-231. Based on a treatise submitted by C. N. de Winsham. According to the records, it was presented to the St. Petersburg Academy on January 26, 1741.
Reviewed in *Nova acta erud.* 1754, p. 74.

E133 De superficie conorum scalenorum, aliorumque corporum conicorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 3-19 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 33-35.
Translation of the abstract: Содержаніе ученыхъ разсужденій императорской академіи наукъ (contains the scholarly treatises of the Imperial Academy of Science), 1, 1748, p. 40-41 [**E133a**].
Reviewed in *Nova acta erud.* 1753, p. 55-57[4]. *Hamburgisches Magazin* 7, 1751, p. 309-310.

[4] The reviews of the *Novi commentarii* in the *Nova acta eruditorum* are usually just copies of the "Summaria," so that in most cases one could write "Reprint of the Abstract" instead of "Review."

E134 Theoremata circa divisores numerorum. Auctore L. Eulero.

Proof of the Fermat Theorem $a^{p-1} \equiv 1 \pmod{p}$. About factors of numbers of the form $ax^m \pm by^m$.
Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 20-48. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 23, 1747; according to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 35-37.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p. 41-44 [**E134a**].
Reviewed in *Nova acta erud.* 1753, p. 57. *Hamburgisches Magazin* 7, 1751, p. 310-311.
Reprinted in *Commentat. arithm.* 1, 1849, p. 50-61 [**E134b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E135 Variae demonstrationes geometriae. Auctore L. Eulero.

Purely geometric proof of a theorem about circles, triangles and quadrilaterals.
Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 49-66 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 37-38.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p. 44-45 [**E135a**].
Reviewed in *Nova acta erud.* 1753, p. 57-58. *Hamburgisches Magazin* 7, 1751, p. 311.
Extract published in *Arch. d. Math.* 27, 1856, p. 116-118 (by J. A. Grunert) [**E135b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E136 De propagatione pulsuum per medium elasticum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 67-105 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 38-40.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p. 45-47 [**E136a**].
Reviewed in *Nova acta erud.* 1753, p. 58-59. *Hamburgisches Magazin* 7, 1751, p. 312-314.

E137 Examen artificii navis a principio motus interno propellendi quod qoundam ab acutissimo viro Jacobo Bernoulli est propositum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 106-123 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum* 1, 1748, p. 40-44.

Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p. 47-52 [**E137a**].
Reviewed in *Nova acta erud.* 1753, p. 59-60. *Hamburgisches Magazin* 7, 1751, p. 314-316.

E137A Extract translated into French: Examen du moyen proposé par Jacques Bernoulli pour mettre les vaisseaux en mouvement à l'aide seulement d'un principe interne. Par M. Euler.

Bibliothèque impartiale 4, 1751, p. 272-289, 402-412.

E138 De motu nodorum lunae ejusque inclinationis ad eclipticam variatione. Auctore Leonh. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 387-427 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748. A treatise with this same title was read to the Berlin Academy on October 5, 1744, but only the abstract appeared in French ("Sur le mouvement des nœuds de la Lune et sur la variation de son inclinaison à l'écliptique") in the *Hist. de l'acad. d. sc. de Berlin* [1] (1745), 1746, p. 40-44 [**E138a**]. Presumably it is this treatise which was presented to the St. Petersburg Academy in 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 66-69.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p.77-81 [**E138b**].
Reviewed in *Nova acta erud.* 1753, p. 71-72. *Hamburgisches Magazin* 7, 1751, p. 349-351.

E139 Quantum motus terrae a luna perturbetur accuratius inquiritur. Auctore Leonhardo Eulero.

Continuation of the preceeding treatise.
Novi commentarii academiae scientiarum Petropolitanae 1, (1747/8), 1750, p. 428-443 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 69-70.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 1, 1748, p. 81-82 [**E139a**].
Reviewed in *Nova acta erud.* 1753, p. 72-73. *Hamburgisches Magazin* 7, 1751, p. 351-354.

E140 Sur la vibration des cordes, par M. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 69-85 + 1 diagram.
According to C. G. J. Jacobi, a Latin treatise with the title: "De vibratione cordarum" was read to the Berlin Academy on May 16, 1748 (see 1749, E119.) The Latin original of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1751, p. 66. *Nouvelle bibliothèque Germanique* 7, 1750, p. 33-34.

E141 Sur l'accord des deux dernières éclipses du soleil et de la lune avec mes tables pour trouver les vrais momens des pléni-lunes et novilunes, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 86-98. A treatise with approximately the same title was presented to the Berlin Academy on October 24, 1748, according to C. G. J. Jacobi. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1751, p. 66-67. *Nouvelle bibliothèque Germanique* 7, 1750, p. 34.

E142 Sur l'atmosphère de la lune prouvée par la dernière éclipse annulaire du soleil. Par M. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 103-121 + 7 figures. A Latin treatise with the title: "De atmosphaera lunae ex eclipsi solis evicta" was presented to the Berlin Academy on December 5, 1748, according to C. G. J. Jacobi. The Latin original of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi. (Also see 1862, E839).
Reviewed in *Nova acta erud.* 1751, p. 67-68. *Nouvelle bibliothèque Germanique* 7, 1750, p. 34. *Bibliothèque impartiale* 1, 1750, p. 329-331.

E143 Sur le frottement des corps solides, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 122-132 + 4 figures. A treatise with the title: "Sur la friction des corps solides" was presented to the Berlin Academy on June 4, 1748, according to C. G. J. Jacobi. The manuscript of the printed treatise, which has "friction" instead of "frottement" in the title, can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1751, p. 68-70. *Nouvelle bibliothèque Germanique* 7, 1750, p. 36-37.

E144 Sur la diminution de la résistance (!) du frottement, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 133-148 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 20, 1749.
Reviewed in *Nova acta erud.* 1751, p. 70-71. *Nouvelle bibliothèque Germanique* 7, 1750, p. 37. *Bibliothèque impartiale* 1, 1750, p. 331-337.

E145 Recherches sur les plus grands et plus petits qui se trouvent dans les actions des forces, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 149-188 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on December 19, 1748. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

Reviewed in *Nova acta erud.* 1751, p. 71-72. *Nouvelle bibliothèque Germanique* 7, 1750, p. 38-39.

E146 Réfléxions (!) sur quelques loix générales de la nature qui s'observent dans les effets des forces quelconques, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 189-218 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 6, 1749.
Reviewed in *Nova acta erud.* 1751, p. 72. *Nouvelle bibliothèque Germanique* 7, 1750, p. 39.

E147 Sur une contradiction apparente dans la doctrine des lignes courbes. Par M. Euler.

The Euler-Cramer Paradox concerning the number of points in which two algebraic curves intersect.
Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 219-233. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 12, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1751, p. 72-73. *Nouvelle bibliothèque Germanique* 7, 1750, p. 40.

E148 Démonstration sur le nombre des points, où deux lignes des ordres quelconques peuvent se couper. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 234-248. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 18, 1748. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1751, p. 73-74. *Nouvelle bibliothèque Germanique 7, 1750, p.* 41.

E149 Réflexions sur l'espace et le tems, par M. Euler.

Mémoires de l'académie des sciences de Berlin [4], (1748), 1750, p. 324-333. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 1, 1748. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reviewed in *Nova acta erud.* 1750, p. 75.

E149A Translated into German: Vernünftige Gedanken von dem Raume dem Orth der Dauer und der Zeit theils aus dem Französischen des Herrn Professor Eulers übersetzt theils aus verschiednen ungedruckten Briefen dieses berühmten Mannesmitgetheilt Nebst einigen Anmerkungen und einem Versuch einer unpartheyische Geschichte der Streitigkeiten über die Dinge. Quedlinburg, bey Gottfried Heinrich Schwans Wittwe 1763.

Kgl. Library in Berlin.
Example used: Polytechn. Lib. in Zurich.

8^0, (15) + 231 pages. Published by the estate of D. Venzky. The translation of "Rèflections" is on p. 1-18: "Des Herrn Prof. Eulers Betrachtungen über den Raum und die Zeit"; further, there are three letters from Euler to D. Venzky, in particular from February 16, 1760, the beginning of 1751 and August 2, 1751, which are found on p. 18-19, 41-43, and 100-104 respectively.
Reviewed in *Urtheile über Gelehrte Sachen* (Greifswald), Sept. 10, 1763, p. 42-48.
Reprinted in *Magazin für Philosophie* 4, 1781, p. 177-194 [**E149Aa**].

E150 Meditationes in quaestionem ab illustrissima academia regia Paris. scientiarum, pro anno 1747. cum praemio duplicato propositam. Quibusnam observationibus mari, tam interdiu quam noctu, itemque durante crepusculo verum temporis momentum commodissime & certissime determinari queat?

Pièces qui ont remporté le prix de l'académie royale des sciences en M.DCC.XLVII, (Paris 1750), 111-167 + 2 diagrams. Motto: "Arbor non uno sternitur ictu." Anonymous. There is not the smallest reason to doubt that this treatise came straight from Euler (see what P. H. Fuss noted in *Commentationes arithmeticae* 1, p. XXV, as well as the letter from Daniel Bernoulli to Euler on April 29, 1747; Fuss, *Corr.* II, p. 619). It is sometimes said that Euler wrote another essay for this competition about the same subject, but that is based on either a mistake or a misunderstanding of Euler's statement in his letter to Goldbach on April 3, 1753 (Fuss, *Corr.* I, p. 609). The statement of *Bibliographie générale de l'astronomie* (2, Brussels 1882, p. 404) by Houzeau and Lancaster is especially incorrect. They attribute the first treatise of "Pièces" to Euler, although Daniel Bernoulli is expressly listed as the author of this treatise. Euler's treatise was finished before the end of July 1746 (see Euler's letter to Goldbach on July 26, 1746; Fuss, *Corr.* I, p. 388)
Republished in *Recueil des pièces qui ont remporté le prix de l'académie royale des science* 6, 1752, p. 111-167 + 2 diagrams [**E150a**].

E151 Coniectura physica de propagatione soni ac luminis.

[*Opuscula varii argumenti*] [2], 1750, p. 1-22. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on August 28, 1749.

E151A Translated into French: Sur la propagation du son et de la lumière.

Œuvres complètes d'Euler 2, 1839, p. 291-302. Only the first part of the translation is printed. A handwritten version of the second part can be found in the library of the observatory in Uccle, near Brussels.

E152 De numeris amicabilibus.

[*Opuscula varii argumenti*] [2], 1750, p. 23-107. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 23, 1747 (see 1849, E798); the work printed in 1750 is obviously a new edition of that treatise.
Reprinted in Commentat. arithm. 1, 1849, p. 102-145 [**E152a**].

E152A Translated into French: Des nombres amiables.

Sphinx-Œdipe (Nancy) [1], 1906/7, Supplément I-LXXVI. Translated by A Gérardin. Also, a handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E153 Demonstratio gemina theorematis Neutoniani, quo traditur relatio inter coëfficientes cujusvis aequationis algebraicae & summas potestatum radicum ejusdem.

[*Opuscula varii argumenti*] [2], 1750, p. 108-120. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 12, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E154 Animadversiones in rectificationem ellipsis.

Description of the circumference of an ellipse by means of infinite series.
[*Opuscula varii argumenti*] [2], 1750, p. 121-166 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 11, 1749.

E155 Auszug eines Briefes von Hrn. Euler über die Vorstellung der Sternenbilder auf der Himmelskugel.

Göttingische Zeitungen von gelehrten Sachen, 1750, 475-477.

Also see 1746 (E88B), 1751 (E166a, 167a).

1751.

E156 L. Euleri Opusculorum tomus III. continens novam theoriam magnetis ab illustr. academia regia scient: Parisina praemio condecoratam a. 1744. Una cum nonnullis aliis dissertationibus analytico-mechanicis. Berolini, sumtibus Ambr. Haude et Joh. Carol. Speneri, Bibliopol. reg. et acad. scient. privil. 1751.

Kgl. Library in Berlin.
Example used: G.E.
4^0, (2) + 165 pages + 5 diagrams. The 3 treatises of this volume are numbers E109b, E173, and E174.
Reviewed in *Nova acta erud.* 1755, p. 500-516. *Hamburgisches Magazin* 8, 1751, p. 277-287. (A. G. Kästner)
Also see 1746 (E80) and 1750 (E121).

E157 De extractione radicum ex quantitatibus irrationalibus. Auctore Leonh. Eulero.

About the factorization of expressions of the form $A+\sqrt{B}$ (A and B are whole numbers).

Commentarii academiae scientiarum Petropolitanae 13, (1741/3), 1751, p. 16-60. According to the records, it was presented to the St. Petersburg Academy on December 5, 1740.
Reviewed in *Nova acta erud.* 1755, p. 358-360.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E158 Observationes analyticae variae de combinationibus. Auctore L. Euler(!).

Pages 64-75 relate to combination theory, but the remainder is basically number-theoretical content and discusses the factorization of sums of whole numbers. The following formula is found at the end, without derivation:

$$(1-n)(1-n^2)(1-n^3)(1-n^4)\cdots = 1-n-n^2+n^5+n^7-n^{12}-\cdots .$$

Commentarii academiae scientiarum Petropolitanae 13, (1741/3), 1751, p. 64-93. According to the records, it was presented to the St. Petersburg Academy on April 6, 1741.
Reviewed in *Nova acta erud.* 1755, p. 361-363.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E159 De motu oscillatorio corporum flexibilium. Auctore Leonh. Eulero.

Commentarii academiae scientiarum Petropolitanae 13, (1741/3), 1751, p. 124-166 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on August 20, 1742 (also see the letter from Euler to Goldbach on June 30, 1742; Fuss, *Corr.,* I p. 130).
Reviewed in *Nova acta erud.* 1755, p. 364-365.

E160 De descensu corporum super plano inclinato aspero. Auctore L. Euler(!).

Commentarii academiae scientiarum Petropolitanae 13, (1741/3), 1751, p. 197-219 + 6 figures. The presentation date is unknown.
Reviewed in *Nova acta erud.* 1755, p. 366. *Nouvelle bibliothèque Germanique* 12, 1753, p. 279-290.

E161 De motu corporum super plano horizontali aspero. Auctore L. Euler(!).

Commentarii academiae scientiarum Petropolitanae 13, (1741/3), 1751, p. 220-254 + 7 figures. The presentation date is unknown.
Reviewed in *Nova acta erud.* 1755, p. 366-369. *Nouvelle bibliothèque Germanique* 12, 1753, p. 279-290 (see above).

E162 Methodus integrandi formulas differentiales rationales unicam variabilem involventes. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 14, (1744/6), 1751, p. 3-91. According to the records, it was presented to the St. Petersburg Academy on September 23, 1748.
Reviewed in *Nova acta erud.* 1756, p. 57-61.

E163 Methodus facilior atque expeditior integrandi formulas differentiales rationales. Auctore L. Eulero.

Commentarii academiae scientiarum Petropolitanae 14, (1744/6), 1751, p. 99-150 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on September 23, 1748.
Reviewed in *Nova acta erud.* 1756, p. 63-64.

E164 Theoremata circa divisores numerorum in hac forma $paa \pm qbb$ contentorum.

Commentarii academiae scientiarum Petropolitanae 14, (1744/6), 1751, p. 151-181. An author is not specified at the beginning of this piece, but according to the table of contents, it was written by Euler. According to the records, it was presented to the St. Petersburg Academy on September 23, 1748. The manuscript can be found in the archive of the Berlin Academy, according to C. G. J. Jacobi, and appears to have been read there in 1747.
Reprinted in *Commentat. arithm.* 1, 1849, p. 35-39 [**E164a**].

E165 De motu corporum flexibilium.

Commentarii academiae scientiarum Petropolitanae 14, (1744/6), 1751, p. 182-196 + 5 figures. An author is not specified at the beginning of this piece, but according to the table of contents, it was written by Euler. According to the records, it was presented to the St. Petersburg Academy on January 9, 1744.
Reviewed in *Nova acta erud.* 1756, p. 64-66.

E166 De reductione linearum curvarum ad arcus circulares. Auctore L. Eulero.

Approximate rectification of pieces of curves, if the length of the normals at the endpoints as well as the angle between these normals are given.
Novi commentarii academiae scientiarum Petropolitanae 2, (1749), 1751, p. 3-38 + 11 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 20, 1747; according to the records, it was presented to the St. Petersburg Academy on April 7, 1749. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 4-5.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 2, 1750, p. 5-6 [**E166a**].
Reviewed in *Nova acta erud.* 1753, p. 253-262.

E167 Solutio problematis difficillimi a Fermatio propositi. Auctore L. Eulero.

The problem is: “Invenire triangulum rectangulum in numeris rationalibus expressum, cujus uterque cathetus area ipsius trianguli minutus producat numerum quadratum.”
Novi commentarii academiae scientiarum Petropolitanae 2, (1749), 1751, p. 49-67. According to the records, it was presented to the St. Petersburg Academy on September 2, 1748.
Abstract: *A. a. O., Summarium dissertationum*, p. 6-7.

Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 2, 1750, p. 7-8 [**E167a**].
Reviewed in *Nova acta erud.* 1753, p. 262-263.
Reprinted in *Commentat. arithm.* 1, 1849, p. 62-72 [**E167b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E168 De la controverse entre Mrs. Leibniz & Bernoulli sur les logarithmes des nombres négatifs et imaginaires. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [5], (1749), 1751, p. 139-179. New edition of a treatise (see 1862, E807), which was presented to the Berlin Academy on September 7, 1747, according to C. G. J. Jacobi. Euler himself claims that this treatise was read before August 19, 1747 in a letter to d'Alembert (see *Bullett. di bibliogr. d. sc. matem.* 19, 1886, p. 141).
Reviewed in *Nova acta erud.* 1752, p. 591-592.

E169 Sur le point de rebroussement de la seconde espèce de Mr. le Marquis de l'Hôpital, par M. Euler.

Mémoires de l'académie des sciences de Berlin [5], (1749), 1751, p. 203-221 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 26, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E170 Recherches sur les racines imaginaires des équations, par M. Euler.

Mémoires de l'académie des sciences de Berlin [5], (1749), 1751, p. 222-288. According to C. G. J. Jacobi, a treatise with the title: "Theoremata de radicibus aequationum imaginariis" was presented to the Berlin Academy on November 10, 1746. The statement from P. H. Fuss that the treatise was presented to the St. Petersburg (!) Academy on May 6, 1776 (!) is a mistake.

E171 Recherches sur la précession des équinoxes, et sur la nutation de l'axe de la terre, par M. Euler.

Mémoires de l'académie des sciences de Berlin [5], (1749), 1751, p. 289-325 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on March 5, 1750.

E172 De la parallaxe de la lune tant par rapport à sa hauteur qu'à son azimuth, dans l'hypothèse de la terre sphéroidique. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [5], (1749), 1751, p. 326-338 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on December 6, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E173 Nova methodus inveniendi trajectorias reciprocas algebraicas.

Opuscula [*varii argumenti*] 3, 1751, p. 54-87 + 1 diagram. It has not been decided whether this treatise is identical to the one which was, according to C. G. J. Jacobi, read to the Berlin Academy on June 23, 1746, entitled "De trajectoriis reciprocis." A manuscript with the shorter title can be found in the archive of the St. Petersburg Academy, according to P. H. Fuss.

E174 De motu corporum flexibilium.

Opuscula [*varii argumenti*] 3, 1751, p. 88-165 + 2 diagrams.
This treatise is probably identitcal to the one read to the Berlin academy on November 5, 1744, the abstract of which appeared in French ("Sur le mouvement des corps flexibles") in *Hist. de l'acad. d. sc. de Berlin* [1] (1745), 1746, p. 54-55 [**E174a**]. The abstract is an almost verbatim translation of the introduction to the treatise in the "Opuscula."

E175 Découverte d'une loi tout extraordinaire des nombres par rapport à la somme de leurs diviseurs. Par M. Euler.

Recursive formula for the sum of the divisors of whole numbers.
Bibliothèque impartiale 3, 1751, p.10-31. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on June 22, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Reprinted in *Commentat. arithm.* 2, 1849, p. 639-647 [**E175a**].
Reprinted in *Opera Postuma* 1, 1862, p. 76-84 [**E175b**].
Also see 1760 (E243).

Also see 1727 (E2a: New edition of the "Dissertatio de sono"), 1748 (E109b), 1750 (E137a).

1752.

E176 Exposé concernant l'examen de la lettre de Mr. de Leibnitz alleguée par M. le prof. Koenig, dans le mois de mars, 1751. des Actes de Leipzic, à l'occasion du principe de la moindre action.

Histoire de l'académie des sciences de Berlin [6], (1750), 1752, p. 52-62. According to a note on p. 63, the Latin orginal of the "Exposé" was read by Euler on April 13, 1752.
Reprinted in *Jugement de l'académie royale des sciences sur une lettre prétendue de Mr. de Leibnitz*, (Berlin 1752), p. I – LXX, (= Dresden edition 1752, p. I-LXIX).
Reprinted in *Bibliothèque impartiale* 6, 1752, p. 116-140, 216-247, 348-370.
Reprinted in A Harnack, *Geschichte der preussischen Akademie der Wissenschaften* II, (Berlin 1900), p. 296-302 [**E176a**].

E177 Découverte d'un nouveau principe de mécanique, par M. Euler.

Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 185-217 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 3, 1750.

E177A Extract translated into English: Of the general and fundamental principle of all mechanics whereon all other principles relative to the motion of solids or fluids should be established. By M. Euler, extracted from the last Berlin memoirs.

Gentleman's Magazine 24, 1754, p. 6-7.

E178 Réflexions sur les divers dégrés (!) de lumière du soleil et des autres corps célestes, par M. Euler.

Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 280-310 + 1 diagram.
According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on March 4, 1751. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E179 Recherches sur l'effet d'un machine hydraulique proposée par M. Segner professeur à Göttingue; par M. Euler.

Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 311-354 + 5 diagrams.
According to C. G. J. Jacobi, a treatise with a similar title was presented to the Berlin Academy on September 2, 1751 (see 1753, E202).

E180 Avertissement au sujet des recherches sur la précession des équinoxes, par M. Euler.

Concerns a prioritization question brought up by d'Alembert.
Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 412. The author of the "Avertissement" names himself "on".

E181 Recherches sur l'origine des forces, par M. Euler.

Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 419-447 + 1 diagram.
Possibly a version of the treatise "Réflexions sur les forces en général," which was presented to the Berlin Academy on October 1, 1750, according to C. G. J. Jacobi.

E182 Lettre de M. Euler à M. Merain. Traduit du Latin.

About the truth of the extracts of a letter from Leibniz to Hermann, published by König, on the principle of least action.
Mémoires de l'académie des sciences de Berlin [6], (1750), 1752, p. 520-532. Dated Spetember 3, 1752 (p. 527); p. 527-532 contain a P.S.
Reviewed in *Götting gel. Anz.* 1753, p. 18-20.

Reprinted in *Lettres concernant le jugement de l'académie royale de Berlin sur un fragment de lettre de Mr. de Leibniz cité par Mr. König* (Berlin 1753), p. 3-26 [**E182a**].

E183 Part of a letter from Leonard Euler, prof. math. at Berlin, and F. R. S. to the rev. Mr. Caspar Wetstein, chaplain to his royal highness the prince of Wales, concerning the gradual approach of the earth to the sun. Translated from the French, by S. T. (!) M. D. F. R. S.

Philosophical Transactions (London) 46, (1749/50), 1752, p. 203-205. The letter is dated June 28, 1749 and was presented to the "Royal Society" on November 2, 1749, according to the remark on p. 203.

E184 Part of a letter from Mr. professor Euler to the reverend Mr. Wetstein, chaplain to his royal highness the prince, concerning the contraction of the orbits of the planets. Translated from the French by T. S. (!) M. D. and F. R. S.

Philosophical Transactions (London) 46, (1749/50), 1752, p. 356-359. The letter is dated December 20, 1749 and was presented to the "Royal Society" on March 1, 1750 [that is, 1749[5]], according to the remark on p. 356.

E185 [Letter from Euler to H. W. Clemm from July 5, 1752.]

About the change of the length of months and years since ancient times.
H. W. Clemm, *Examen temporum mediorum, secundum principia astronomica et chronologica*, Berlin, Haude & Spener 1752, 8^0, p. 5a-7b (6 printed pages).

Also see 1739 (E34a), 1741 (E46a-57a), 1745 (E78a), 1748 (E108a, 109a), 1749 (the note for E120), 1750 (E150a).

1753.

E186 Dissertatio de principio minimae actionis una cum examine objectionum cl. prof. Koenigii contra hoc principium factorum. Auctore L. Eulero directore academiae regiae scient. et. elegant. litt.

Kgl. Library in Berlin.
Example used: Naturf. Ges. Lib. in Zurich.
8^0, (16) + 223 pages. The Latin title is also written on the back of the title page with the addition "Berolini ex officina Michaelis 1753." The following page has the French title: "Dissertation sur le principe de la moindre action avec l'examen des objections de M. le prof. Koenig faites contre ce principe. Par M. Euler directeur de l'académie royale des sciences et belles lettres. Traduction. à Berlin inprimé chez Michaelis 1753." The following twelve pages contain the text of the foreword, Latin on the left, French on the right, and the table of contents is on the last unnumbered page in Latin and French. Then come the two treatises listed below (E198, E199) in

[5] England was using a different calendar at this time, so it was 1750 in England, and 1749 in the rest of Europe. – G.P.

Latin and French. In the foreword it is expressly stated that the "Dissertatio" appeared before the publication of the 7th volume of the Berlin Academy "Histoire".

E186² Dissertation sur le principe de la moindre action, avec l'examen des objections de Mr. le professeur Koenig faites contre ce principe. Par M. Euler, directeur de l'académie royale des science & belles lettres de Berlin. Traduction. A Leide, De l'imp. d'Élie Lusac, fils. MDCCLIII.

Kgl. Library in Berlin.
Example used: Kantonsbibl. in Zurich.
8^0, (8) + 88 pages. Only the French text is reprinted.
Reviewed in *Bibliothèque impartiale* 8:1, 1753, p. 127-139.

E187 Theoria motus lunae exhibens omnes ejus inaequalitates In additamento hoc idem argumentum aliter tractatur simulque ostenditur quemadmodum motus lunae cum omnibus inaequalitatibus innumeris aliis modis repraesentari atque ad calculum revocari possit auctore L. Eulero Impensis academiae imperialis scientiarum Petropolitanae anno 1753.

Kgl. Library in Berlin.
Example used: G.E.
4^0, VIII + 347 pages + 1 diagram. The place of publication is found on p. 347: "Beronlini, ex officina Michaelis." In addition to the foreword (which was not written by Euler), it contains an "Introductio," 18 chapters, and "Additamentum continens alias methodos investigandi motus lunae inaequalitates" as mentioned in the title. The 18 chapters are: 1. De motu corporis a viribus quibuscunque sollicitati. 2. Investigatio virium lunam sollicitantium. 3. Introductio anomaliae verae lunae in praecedentes aequationes. 4. Investigatio inaequalitatis lunae absolutae, quae variatio dicitur. 5. Investigatio inaequalitatum lunae ab ejus excentricitate simplici solum pendentium. 6. Investigatio inaequalitatum lunae a quadrato excentricitatis ipsius ortarum. 7. Correctio inaequalitatum lunae hactenus inventarum. 8. De motu apogei lunae. 9. Investigatio inaequalitatum lunae a sola excentricitate orbitae solis pendentium. 10. Investigatio inaequalitatum lunae ab utriusque orbitae excentricitate simul pendentium. 11. Investigatio inaequalitatum lunae a parallaxi solis pendentium. 12. Investigatio inaequalitatum motum lineae nodorum afficientium. 13. Investigatio inclinationis orbitae lunaris ad eclipticam cum ejus variatione. 14. Investigatio inaequalitatum lunae ab ejus inclinatione ad eclipticam oriundarum. 15. Accuratior investigatio inaequalitatum lunae ab inclinatione ejus orbitae pendentium. 16. Expositio inaequalitatum lunae hactenus inventarum. 17. Investigatio elementorum motus lunae. 18. Constitutio elementorum pro tabulis lunaribus.
The foreword indicates that this work is not an essay for a competition which did not win the prize (see the letter from C. G. J. Jacobi to P. H. Fuss from March/April 1848; *Bibl. math.* 8_3, 1907/8, p. 302). It was actually inspired by the winning essay of Clairaut, which Euler sent a report to the Academy about. According to C. G. J. Jacobi, Euler presented a piece with the title "Theoria motus lunae" to the Berlin Academy on April 22, 1751.
Reviewed in *Nova acta erud.* 1753, p. 502-508. A preliminary report about the Euler's work appeared in 1752 under the title: *Recensio theoriae Eulerianae motus atque anomaliae lunae, in conventu acad. sc. imp. publico, die 7. sept. 1752 biduo post solemnia diei nomini invictissimae Russiarum imperatrici Elisabethae sacri praelecta a N. Popow*, (St. Petersburg, 1752, 22 pages, 4^0). A Russian edition of the report appeared at the same time under the title: Рѣчь о новыхъ

изобрѣтеніяхъ въ лунной теоріи побужденіемъ императорской академіи наукъ нынѣ въ свѣ тѣ учиненныхъ, два дни спустя послѣ высочайшаго дня тезоименитства ея императорскаго величества въ публичномъ собраніи оной академіи сентября 7 дня 1752 года говоренная профессоромъ астрономіи Никитою Поповымъ.
Review of Popow's report: *Nouvelle bibliothèque Germanique* 11:2, 1752, p. 381-408.

E188 Methodus aequationes differentiales altiorum graduum integrandi ulterius promota. Auctore L. Eulero.

Integration of *n*th-order ordinary linear differential equations with constant coefficients.
Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 3-35. According to the records, it was presented to the St. Petersburg Academy on September 21, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 6-8
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 5-7
Reviewed in *Nova acta erud.* 1759, p. 312-313.

E189 De serierum determinatione seu nova methodus inveniendi terminos generales serierum. Auctore L. Eulero.

On the investigation of the general form of the nth term of a sequence under the condition that n also takes on fractional or irrational values.
Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 36-85. Possibly the treatise "De serierum determinatione," which was read to the Berlin Academy on October 9, 1749 according to C. G. J. Jacobi; according to the records, it was presented to the St. Petersburg Academy on September 21, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-10
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 7-10
Reviewed in *Nova acta erud.* 1759, p. 313-315.

E190 Consideratio quarumdam (!) serierum, quae singularibus proprietatibus sunt praeditae. Auctore L. Eulero.

About the sequence, for which the general term T_n takes on the value 1,2,3, … m, for n = α, α^2, α^3, … α^m respectively, and related sequences.
Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 86-108.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on June 19, 1749; according to the records, it was presented to the St. Petersburg Academy on January 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-14; pages 12-14 contain an extensive index of typographical errors.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 10-11
Reviewed in *Nova acta erud.* 1759, p. 315-316.

E191 De partitione numerorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 125-169.
According to the records, it was presented to the St. Petersburg Academy on January 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-18; pages 17-18 have several typographical errors corrected.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 12-15.
Reviewed in *Nova acta erud.* 1759, p. 316-317.
Reprinted in *Commentat. arithm.* 1, 1849, p. 73-101 [**E191a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E192 Solutio problematis geometrici. Auctore L. Eulero.

The problem is: "Datis diametris conjugatis *Ee*, *Ff* ellipsis tam magnitudine quam positione, invenire axes conjugatos tam magnitudine quam longitudine."
Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 224-234 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on October 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 18-19.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 15-16.
Reviewed in *Nova acta erud.* 1759, p. 317.

E193 De perturbatione motus planetarum ab eorum figura non sphaerica oriunda. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 235-253 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on December 4, 1749; according to the records, it was presented to the St. Petersburg Academy on January 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 19-21
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 16-18.
Reviewed in *Nova acta erud.* 1759, p. 317-318.

E194 De machinis in genere. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 254-285 + 4 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 6, 1746; according to the records, it was presented to the St. Petersburg Academy on January 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-23
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 18-21.
Reviewed in *Nova acta erud.* 1759, p. 318-319.

E195 De motu tautochrono pendulorum compositorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 286-306 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on January 26, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-27.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 21-24.
Reviewed in *Nova acta erud.* 1759, p. 319.

E196 Emendatio laternae magicae ac microscopii solaris. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 3, (1750/1), 1753, p. 363-380 + 7 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 19, 1750; according to the records, it was presented to the St. Petersburg Academy on April 30, 1750.
Abstract: *A. a. O., Summarium dissertationum*, p. 31-34; p. 34 has several typographical errors corrected.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 3, 1753, p. 28-31.
A version of this treatise by J. F. Häseler appeared under the title: *Betrachtungen über die Verbesserung der Zauberlaterne, des Sonnenmicroscops und der Camera obscura nach der Theorie des Herrn Euler in Braunschweig*, 1779, (4^0, 40 pages + 1 diagram) [**E196a**].
Reviewed in *Nova acta erud.* 1759, p. 321-322.

E197 Harmonie entre les principes généraux de repos et de mouvement de M. de Maupertuis, par M. Euler.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 169-198 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 9, 1752.

E198 De principio minimae actionis.

Dissertatio de principio minimae actionis (see E186), 1753, p. 2,4,6, …, 92, 94.

E198A Translated into French: Sur le principe de la moindre action, par M. Euler. Traduit du Latin.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 199-218. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 22, 1753.
Reprinted in *Dissertatio de principio minimae actionis* (see E186), 1753, p. 3, 5, 7, … , 93, 95.
Reprinted in *Dissertation sur le principe de la moindre action* (see $E186^2$), 1753, p. 1-36.

E199 Examen dissertationis clariss. professoris Koenig (!) actis erud. Lips. insertae pro mense martio 1751.

Dissertatio de principio minimae actionis (see E186), 1753, p. 98, 100, … , 220, 222. Pages 198, …, 222: "Additamentum."

E199A Translated into French: Examen de la dissertation de M. le professeur Koenig, insérée dans les Actes de Leipzig, pour le mois de mars 1751. Par M. Euler. Traduit du Latin.

Concerns the Argument over the principle of least action.
Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 219-245. Pages 240-245 conatin an "Addition." According to C. G. J. Jacobi, a treatise with the Latin title given above was presented to the Berlin Academy on December 21, 1752.
Reprinted in *Dissertatio de principio minimae actionis* (see E186), 1753, p. 99, 101, …221, 223; pages 199, …, 223: "Addition".
Reprinted in *Dissertation sur le principe de la moindre action* (see E186[2]), 1753, p. 37-88; pages 77-88: "Addition".

E200 Essay (!) d'une démonstration métaphysique du principe général de l'équilibre. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 246-254 + 1 diagram. The presentation date is unknown.
Reviewed in Nova acta erud. 1754, p. 179.

E201 Calcul de la probabilité dans le jeu de rencontre, par M. Euler.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 255-270. According to C. G. J. Jacobi, a treatise with the title: "Calcul des probabilités dans les jeux de hasard" was presented to the Berlin Academy on March 8, 1753.
Reviewed in *Nova acta erud.* 1754, p. 179.

E202 Application de la machine hydraulique de M. Segner à toutes sortes d'ouvrages et de ses avantages sur les autres machines hydrauliques dont on se sert ordinairement, par M. Euler.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 271-304 + 2 diagrams. According to C. G. J. Jacobi, a treatise on this subject was presented to the Berlin Academy on September 2, 1751 (see 1752, E179).

E203 Recherche sur une nouvelle manière d'élever de l'eau proposée par M. de Mour, par M. Euler.

Mémoires de l'académie des sciences de Berlin [7], (1751), 1753, p. 305-330 + 2 diagrams. Probably the treatise "Réflexions sur la machine de M. Mauer pour élever l'eau" which was presented to the Berlin Academy on November 18, 1751, according to C. G. J. Jacobi.

E204 Extract of a letter from professor Euler, of Berlin, to the rev. Mr. Caspar Wetstein, chaplain to her royal highness the princess Dowager of Wales.

Concerns the Newtonian moon theory.
Philosophical Transactions (London) 47, (1751/2), 1753, p. 263-264. Undated; presented to the "Royal Society" on October 24, 1751, according to the remark on p. 263.

E205 Praefatio.

Atlas geographicus omnes orbis terrarum regiones in XLI tabulis exhibens. Jussu academiae regiae scient. et eleg. litt. Boruss. ad emendatiora, quae adhuc prodiere exempla descriptus atque ad usum potissimum scholarum et institutionem juventutis editus. Berolini ex officia Michaelis 1753, Fol.; Title and introduction in Latin and French. The introduction contains 9 divided pages with Latin text on the left and French on the right (p. III-XI). "Dabam Berolini d. 13 Maji 1753. L. Euler" is written at the end of the Latin text, and the end of the French text has a corresponding statement.
The French text of the foreword reprinted in *Nouvelle bibliothèque Germanique* 13, 1753, p. 103-113.
A new edition of the atlas, containing 44 maps, appeared in Berlin in 1760 with the title and introduction in German, French and Latin [**E205a**].

Also see 1752 (E182a).

1754.

E206 Sur le mouvement de l'eau par des tuyaux de conduite, par M. Euler.

Mémoires de l'académie des sciences de Berlin [8], (1752), 1754, p. 111-148 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 23, 1749.

E207 Discussion plus particulière de diverses manières d'élever de l'eau par le moyen des pompes avec le plus grand avantage, par M. Euler.

Mémoires de l'académie des sciences de Berlin [8], (1752), 1754, p. 149-184 + 1 diagram. According to C. G. J. Jacobi, a treatise with the title: "Discussion particulière des diverses manières d'élever l'eau" was presented to the Berlin Academy on November 20, 1749.

E208 Maximes pour arranger le plus avantageusement les machines destinées à élever de l'eau par le moyen des pompes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [8], (1752), 1754, p. 185-232. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 5, 1750. Reviewed in *Nouvelle bibliothèque Germanique* 15, 1754, p. 249-253.

E209 Essai d'une explication physique des couleurs engendrées sur des surfaces extrémement minces, par M. Euler.

Mémoires de l'académie des sciences de Berlin [8], (1752), 1754, p. 262-282. According to C. G. J. Jacobi, a treatise with the title: "Exposition physique de la cause des couleurs des feuilles très minces" was presented to the Berlin Academy on April 12, 1753. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi. Reprinted in *Œuvres complètes d'Euler* 2, 1839, p. 310-328 [**E209a**].

E210 Mr. Euler's letter to Mr. James Short, F.R.S.

Concerns the theory of optical insturments.
Philosophical Transactions (London) 48:1, (1753), 1754, p. 292-296. The letter itself (dated June 19, 1752) only fills page 292. Pages 293-296 contain a supplement : "A Monsieur Monsieur Dollond," which is dated June 15, 1752. Presented to the "Royal Society" on July 8, 1753, according to the remarks on p. 292 and 293.

E211 Problema, ad cujus solutionem geometrae invitantur.—Theorema, ad cujus demonstrationem geometrae invitantur.

Both the problem and the theorem relate to the theory of the elliptical integral (see 1761, E264).
Nova acta eruditorum, 1754, p. 40. Anonym; it can be seen that Euler posed this question in, for example, *Nova acta. erud.* 1762, p. 404-405; also see the letter from Euler to Goldbach on May 30, 1752 (Fuss, *Corr.* I, p. 568).

Also see 1752 (E177A), 1758 (E228a-232a).

1755.

E212 Institutiones calculi differentialis cum ejus usu in analysi finitorum ac doctrina serierum auctore Leonhardo Eulero acad. reg. scient. et eleg. litt. Boruss. directore prof. honor. acad. imp. scient. Petrop. et academiarum regiarum Parisinae et Londinensis socio. Impensis academiae imperialis scientiarum Petropolitanae 1755.

Kgl. Library in Berlin
Example used: G. E.
4^0, XXIV + 880 pages. The place of publication is Berlin, as indicated in the statement on p. 880: "Berolini ex officina Michaelis." In addition to the "Praefatio," it contains 27 chapters: I: 1. De differentiis finitis. I: 2. De usu differentiarum in doctrina serierum. I: 3. De infinitis et infinite parvis. I: 4. De differentialium cujusque ordinis natura. I: 5. De differentiatione functionum algebraicarum unicam variabilem involventium. I: 6. De differentiatione functionum transcendentium. I: 7. De differentiatione functionum duas pluresve variabiles involventium. I: 8. De formularum differentialium ulteriori differentiatione. I: 9. De aequationibus

differentialibus. II: 1. De transformatione serierum. II: 2. De investigatione serierum summabilium. II: 3. De inventione differentiarum finitarum. II: 4. De conversione functionum in series. II: 5. Investigatio summae serierum ex termino generali. II: 6. De summatione progressionum per series infinitas. II: 7. Methodus summandi superior ulterius promota. II: 8. De usu calculi differentialis in formandis seriebus. II: 9. De usu calculi differentialis in aequationibus resolvendis. II: 10. De maximis et minimis. II: 11. De maximis et minimis functionum multiformium pluresque variabiles complectentium. II: 12. De usu differentialium in investigandis radicibus realibus aequationum. II: 13. De criteriis radicum imaginariarum. II: 14. De differentialibus functionum in certis tantum casibus. II: 15. De valoribus functionum, qui certis casibus videntur indeterminati. II: 16. De differentiatione functionum inexplicabilium. II: 17. De interpolatione serierum. II: 18. De usu calculi differentialis in resolutione fractionum. A letter from Euler to Goldbach on August 6, 1748 appears to indicate the manuscript of this work was already in the hands of the publishers by 1748 (Fuss, *Corr.* I, p. 473). According to a letter from Euler to Goldbach on July 4, 1744, it was already being attacked in 1744 (Fuss, *Corr.* I, p.279).
Reviewed in *Götting. gel. Anz.* 1757, p. 1145-1152. *Nouvelle bibliothèque Germanique* 18:1, 1756, p. 101-122 (L. Bertrand), 22:1, 1758, p. 132-156, 22:2, 1758, p. 262-285.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E212[2] Institutiones calculi differentialis cum ejus usu in analysi finitorum ac doctrina serierum. Auctore Leonardo Eulero acad. reg. scient. et eleg. litt. Boruss. directore prof. honor. acad. imp. scient. Petrop. et academiarum regiarum Parisinae et Londinensis socio. Ticini in typographeo Petri Galeatii superiorum permissu. 1787.

Polytechn. Lib. in Zurich
Example used: G. E.
4^0, LXIV + 846 pages. According to the dedcation (p. III), it was published by F. Speroni; J. Ph. Grüson incorrectly lists G. Fontana as the publisher in his *Supplement zu L. Eulers Differenzialrechnung* (Berlin 1798, p. I and VII). It is known that "Ticinum" means Pavia (not Tessin). The real textbook is found on p. 1-700; pages IX-LII contain an edition of Condorcet's "Èloge" and p. 705-732 contain a posthumous work of Euler's: "Dilucidationes in capita postrema calculi mei differentialis de functionibus inexplicabilibus" (see 1787, E613). Then come "Adnotationes" (p. 733-814) and the "Index absolutissimus omnium Euleri lucubrationum, tum editarum, tum ineditarum" (p. 815-844). In bibliographical works an 1804 St. Petersburg edition is sometimes mentioned, but presumably this is only because of a mistake.

E212A Translated into German: Leonhard Euler's Vollständige Anleitung zur Differential-Rechnung. Aus dem Lateinischen übersetzt und mit Anmerkungen und Zusätzen begleitet von Johann Andreas Chrstian Michelsen, Professor der Mathematik und Physik am Berlinischen Gymnasium. Erster Theil. Berlin und Libau, bey Lagarde und Friedrich 1790. – Zweiter Theil. Berlin und Libau, bey Lagarde und Friedrich 1790. – Dritter Theil. Berlin, bey Lagarde 1793.

Kgl. Library in Berlin
Example used: G. E.
8^0. 1: LXXIX + (1) + 400 pages. 2: (6) + 342 pages. 3: (6) + 322 pages. On the title page of the third part, the translator calls himself a "Professor der Mathmatik und Physik am vereinigten

Berlinischen und Cöllnischen Gymnasium und Mitglied der Königl. Preuss. Akademie der Wissenschaften."
Reviewed in *Allg. Literaturz.* 1790: 4, p. 385-387; 1792:2, p. 475-476. *Götting. gel. Anz.* 1790, p. 789-790 (Kästner). *Allg. deutche Bibl.* 97:2, 1790, p. 457-460; 106:1, 1792, p. 186-187.

E213 Remarques sur les mémoires précédens de M. Bernoulli, par M. Euler.

Concerns two earlier treatises by Daniel Bernoulli "Sur les vibrations des cordes."
Mémoires de l'académie des sciences de Berlin [9], (1753), 1755, p. 196-222 + 1 diagram.
According to C. G. J. Jacobi, a treatise on this subject was presented to the Berlin Academy on April 25, 1754.

E214 Principes de la trigonométrie sphérique tirés de la méthode des plus grands et plus petits. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [9], (1753), 1755, p. 223-257 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 18, 1753.

E214A Translated into German: Grundzüge der sphärischen Trigonometrie. Abgleitet nach der Methode der grössten und kleinsten Werthe. Von L. Euler.

Klassiker der exakten Wissenschaften 73, Leipzig 1898, p. 3-39. Translated by E. Hammer.

E215 Élémens de la trigonométrie sphéroïdique tirés de la méthode des plus grands et plus petits. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [9], (1753), 1755, p. 258-293 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title ("sphéroïdique" was probably just incorrectly copied as "sphérique") was presented to the Berlin Academy on September 11, 1754.

E216 Examen d'une controverse sur la loi de réfraction des rayons de différentes couleurs par rapport à la diversité des milieux transparens par lesquels ils sont transmis. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [9], (1753), 1755, p. 294-309. According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on August 22, 1754.

E217 Recherches sur la véritable courbe que décrivent les corps jettés dans l'air ou dans un autre fluide quelconque, par M. Euler.

Mémoires de l'académie des sciences de Berlin [9], (1753), 1755, p. 321-352 + 1 diagram.
According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on July 20, 1752.

E217A Translated into English: Discourse upon the track described by a body in a resisting medium [1777].

See 1745 (E77A).

E218 [Letter from L. Euler to E. Pontoppidan from May 11, 1754.]

E. Pontoppidan, *Essays sur la nouveaute du monde*, Copenhagen 1755.
Reprinted in E. Pontoppidan, *Abhandlung von der Neuigkeit der Welt*, Copenhagen 1758, p. 171-183 (with a German translation) [**E218a**].
Reprinted in B. Hansted, "Deux pièces peu connues de la correspondance d'Euler"; *Bullet. d. sc. mathem.* 3_2, 1879, p. 29-32 [**E218b**].

1756.

E219 De la réfraction de la lumière en passant par l'atmosphère selon les divers degrés tant de la chaleur que de l'élasticité de l'air. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 131-172 + 1 diagram.
According to C. G. J. Jacobi, a treatise "Sur la réfraction de la lumière" was presented to the Berlin Academy on June 22, 1752. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E220 Réflexions sur un problème de geométrie traité par quelques géomètres, et qui est néanmoins impossible. Par M. Euler.

The problem is: "Trouver une ligne courbe *MAN* autour d'un point fixe *C*, telle, que si l'on tire par ce point *C* une ligne droite quelconque *MCN*, qui coupe la courbe en deux points *M* et *N*, les tangentes *MT* et *NT* menées à ces points fassent entr'elles en *T* un angle donné."
Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 173-199 + 2 diagrams.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 15, 1754.

E221 Recherches physiques sur la diverse réfrangibilité des rayons de lumière. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 200-226. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on December 12, 1754.

E222 Théorie plus complette des machines qui sont mises en mouvement par la réaction de l'eau. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 227-295 + 1 diagram.
According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on September 13, 1753. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Extract reprinted in *Correspondance sur l'école polytechnique* 3, 1814/16, p. 234 (Hachette) [**E222a**].

E223 De la variation de la latitude des étoiles fixes et de l'obliquité de l'écliptique. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 296-336 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on April 24, 1755.
Reviewed in *Nouvelle bibliothèque Germanique* 19, 1756, p. 7-11.

E224 Avertissement.

Relates to the treatise "Éclaircissemens sur les erreurs qu'on peut attribuer à la mesure du degré en France" by Lacaille that comes before the "Avertissiment" on p. 337-346, where Euler's treatise listed above as E215 is partly criticised. Euler maintains that the earth can be considered an ellipsoid by certain investigations.
Mémoires de l'académie des sciences de Berlin [10], (1754), 1756, p. 346.

1757.

E225 Principes généraux de l'état d'équilibre des fluides. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [11], (1755), 1757, p. 217-273 + 3 diagrams.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 11, 1753.
Reviewed in *Nouvelle bibliothèque Germanique* 21, 1757, p. 1-6.

E226 Principes généraux du mouvement des fluides. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [11], (1755), 1757, p. 274-315 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 4, 1755.
Reviewed in *Nouvelle bibliothèque Germanique* 21, 1757, p. 6-10.

E227 Continuation des recherches sur la théorie du mouvement des fluides. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [11], (1755), 1757, p. 316-361 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 2, 1755.
Reviewed in *Nouvelle bibliothèque Germanique* 21, 1757, p. 10.

E228 De numeris, qui sunt aggregata duorum quadratorum. Auct. L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 4, (1752/3), 1758, p. 3-40. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 20, 1749; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-8.
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наук 4, 1754, p. 5-9 [**E228a**].
Reviewed in *Nova acta erud.* 1760, p. 13-14.
Reprinted in *Commentat. arithm.* 1, 1849, p. 155-173 [**E228b**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E229 De constructione aptissima molarum alatarum. Auct. L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 4, (1752/3), 1758, p. 41-108 + 9 figures (of which, admittedly, figure 7 appears to be missing). According to the records, it was presented to the St. Petersburg Academy on September 13, 1751.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-13
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 4, 1754, p. 9-16 [**E229a**].
Reviewed in *Nova acta erud.* 1760, p. 14-16.

E230 Elementa doctrinae solidorum. Auct. L. Eulero.

Theorems about polyhedra. The Euler Polyhedron Theorem is deduced by induction.
Novi commentarii academiae scientiarum Petropolitanae 4, (1752/3), 1758, p. 109-140 + 5 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on November 26, 1750; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 14-17
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 4, 1754, p. 16-20 [**E230a**].
Reviewed in *Nova acta erud.* 1760, p. 16-17.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E231 Demonstratio nonnullarum insignium proprieatatum, quibus solida hedris planis inclusa sunt praedita. Auct. L. Eulero.

After the theorems, the Euler Polyhedron Theorem is found along with its proof.
Novi commentarii academiae scientiarum Petropolitanae 4, (1752/3), 1758, p. 140-160 + 5 figures. According to C. G. J. Jacobi, it might have been read to the Berlin Academy on September 9, 1751; according to the records, it was presented to the St. Petersburg Academy on April 6, 1752. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

Abstract: *A. a. O., Summarium dissertationum*, p. 14-17 (see above)
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 4, 1754, p. 16-20 (see above) [**E231a**].
Reviewed in *Nova acta erud.* 1760, p. 16-17 (see above)
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E232 De motu corporum coelestium a viribus quibuscunque perturbato. Auct. L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 4, (1752/3), 1758, p. 161-196 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on November 12, 1750 ; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum,* p. 17-20
Translation of the abstract: Содержаніе ученыхъ рассужденій императорской академіи наукъ 4, 1754, p. 20-24 [**E232a**].
Reviewed in *Nova acta erud.* 1760, p. 17-18.

E233 Recherches plus exactes sur l'effet des moulins à vent. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [12], (1756), 1758, p. 165-234 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 15, 1756.

E234 Expériences pour déterminer la réfraction de toutes sortes de liqueurs transparentes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [12], (1756), 1758, p. 235-266 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on June 25, 1757.
Abstract: *Œuvres complètes d'Euler* 2, 1839, p. 329-343 [**E234a**].

E235 Sur l'action des scies, par M. Euler.

Mémoires de l'académie des sciences de Berlin [12], (1756), 1758, p. 267-291 + 1 diagram.
According to C. G. J. Jacobi, a treatise with the title: "Sur les scies" was presented to the Berlin Academy on January 17, 1754.

E236 Exposition de quelques paradoxes dans le calcul intégral, par M. Euler.

About singular integrals of differential equations (derivation through differentiation; proof that these integrals are not included in the general solution.)
Mémoires de l'académie des sciences de Berlin [12], (1756), 1758, p. 300-321 + 1 diagram.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 31, 1754.

1759.

E237 Recherches sur la déclinaison de l'aiguille aimantée. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [13], (1757), 1759, p. 175-251 + 15 figures.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 29, 1757.

E238 Sur la force des colonnes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [13], (1757), 1759, p. 252-282 + 3 figures.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 1, 1757.
Reviewed in *Nouvelle bibliothèque Germanique* 24, 1759, p. 303-307.

E239 Règles générales pour la construction des télescopes et des microscopes, de quelque nombre de verres qu'ils soient composés. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [13], (1757), 1759, p. 283-322. Maybe this is the treatise: "Règles générales pour la construction des microscopes et des télescopes" which was presented to the Berlin Academy on July 1, 1756, according to C. G. J. Jacobi.
Extract reprinted in *Mélanges de philosophie et de mathématique de la société royale de Turin* 3, (1762/5), 1766, p. 152-155 (second pagination). [**E239a**].

E240 Recherches sur les lunettes à trois verres qui représentent les objets renversés. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [13], (1757), 1759, p. 323-372. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on July 15, 1756.

1760.

E241 Demonstratio theorematis Fermatiani omnem numerum primum formae $4n+1$ esse summam duorum quadratorum. Auctore Leonardo Eulero.

Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 3-13. According to C. G. J. Jacobi, a treatise with the title: "De numeris qui sunt aggregata duorum quadratorum" was read to the Berlin Academy on October 15, 1750; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 3-5.
Reviewed in *Nova acta erud.* 1761, p. 217-218.
Reprinted in *Commentat. arithm.* 1, 1849, p. 210-215 [**E241a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E242 Demonstratio theorematis Fermatiani omnem numerum sive integrum sive fractum esse summam quatuor pauciorumve quadratorum.

Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 13-58. Page 13 is missing the title, so the treatise appears to be a continuation of the preceding treatise. According to C. G. J. Jacobi, a treatise with the title given above was read to the Berlin Academy on June 17, 1751; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 6-7.
Reviewed in *Nova acta erud.* 1761, p. 217-218 (see above).
Reprinted in *Commentat. arithm*. 1, 1849, p. 215-233 [**E242a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E243 Observatio de summis divisorum. Auctore L. Eulero.

Table of the sums of divisors for the numbers 1-100 and remarks about the recursive formula for sums of divisors.
Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 59-74. According to the records, it was presented to the St. Petersburg Academy on April 6, 1752; according to C. G. J. Jacobi, it is probably "Mémoire concernant un théorème arithmétique" which was read to the Berlin Academy on September 9, 1751. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi. The treatise can be looked at as a new edition of E175 (see 1751).
Abstract: *A. a. O., Summarium dissertationum*, p. 7-11.
Reviewed in *Nova acta erud.* 1761, p. 218.
Reprinted in *Commentat. arithm.* 1, 1849, p. 146-154 [**E243a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E244 Demonstratio theorematis circa ordinem in summis divisorum observatum. Auct. L. Eulero.

Proof of the recursive formula for sums of divisors.
Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 75-83. The presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 11.
Reprinted in *Commentat. arithm.* 1, 1849, p. 234-238 [**E244a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E245 De methodo Diophanteae analoga in analysi infinitorum. Auct. L. Eulero.

To find an algebraic relation between x and y, such that an integral of the form $\int f(x,y)dx$ can be algebraically expressed. Related problems, for example integration of the differential equation $dx^2 + dy^2 = ds^2$ by means of algebraic functions.

Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 84-144.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 7, 1751; according to the records, it was presented to the St. Petersburg Academy on December 11, 1752. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 12-14.
Reviewed in *Nova acta erud.* 1761, p. 218-219.

E246 Subsidium calculi sinuum. Auctore L. Eulero.

Expressions of the form $(\sin \varphi)^m \cdot (\cos \varphi)^n$ will be defined as sine or cosine series which progress by multiples of φ.
Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 164-204.
According to C. G. J. Jacobi, a treatise with the title: "Subsidium doctrinae sinuum" was read to the Berlin Academy on March 9, 1752; according to the records, it was presented to the St. Petersburg Academy on March 12, 1753. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-19.
Reviewed in *Nova acta erud.* 1761, p. 220-221.

E247 De seriebus divergentibus. Auctore Leon. Eulero.

A closed expression will be described as the sum of a divergent series, and the expression will develop out of the series. Divergent series will be related to other series or to continued fractions.
Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 205-237.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on October 27, 1746; according to the records, it was presented to the St. Petersburg Academy on March 12, 1753.
Abstract: *A. a. O., Summarium dissertationum*, p. 19-23.
Reviewed in *Nova acta erud.* 1761, p. 221.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E248 De cochlea Archimedis. Auctore Leon. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 259-298 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on October 21, 1751; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-25.

E249 De aptissima figura rotarum dentibus tribuenda. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 5, (1754/5), 1760, p. 299-316 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 23, 1752; according to the records, it was presented to the St. Petersburg Academy on

March 12, 1753. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 25-26.

Also see 1740 (E35A: Russian translation of "Rechenkunst"), 1741 (E57c), 1753, (E205a).

1761.

E250 Methodus inveniendi infinitas curvas isoperimetras (!) aliave communi proprietate praeditas. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 3-36. According to C. G. J. Jacobi, a treatise with the title "Sur le problème isopérimétrique" was read to the Berlin Academy on January 14, 1751; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-7; here the title reads "isoperimetricas."
Reviewed in *Nova acta erud.* 1761, p. 441-442.

E251 De integratione aequationis differentialis $\frac{mdx}{\sqrt{(1-x^4)}} = \frac{ndy}{\sqrt{(1-y^4)}}$. Auctore L. Eulero.

Euler takes it for granted that $\frac{m}{n}$ is a rational number. In addition to the equation given in the title, Euler also handles the cases where there is an arbitrary whole fourth-degree function or a special 6^{th}-degree function under the radical sign.
Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 37-57 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on April 30, 1753.
Abstract: *A. a. O., Summarium dissertationum*, 7-9.
Reviewed in *Nova acta erud.* 1761, p. 442-443.

E252 Observationes de comparatione arcuum curvarum irrectificabilium. Auctore L. Eulero.

Theorems on elliptic, hyperbolic, and lemniscate arcs, whose coordinates are the sum or difference of an algebraic function, or of arcs which are multiples of each other.
Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 58-84 + 13 figures. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 27, 1752; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-11.
Reviewed in *Nova acta erud.* 1761, p. 443.

E253 De problematibus indeterminatis quae videntur plus quam determinata. Auctore L. Eulero.

Certain algebraic expressions, for example $xy + z$, $xz + y$, $yz + x$ will be simultaneously made quadratic.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 85-114.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 5, 1753; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 12-14.
Reviewed in *Nova acta erud.* 1761, p. 443-444.
Reprinted in *Commentat. arithm.* 1, 1849, p. 245-259 [**E253a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E254 De expressione integralium per factores. Auctore L. Eulero.

About the Beta-function.
Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 115-154.
According to the records, it was presented to the St. Petersburg Academy on August 18, 1754.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-17.
Reviewed in *Nova acta erud.* 1761, p. 444.

E255 Solutio generalis quorundam problematum Diophantaeorum, quae vulgo nonnisi solutiones speciales admittere videntur. Auctore L. Eulero.

Solution to the equations $x^3 + y^3 + z^3 = t^3$ and $x^3 + y^3 = z^2$.
Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 155-184.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on May 9, 1754; according to the records, it was presented to the St. Petersburg Academy on September 30, 1754.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-18.
Reprinted in *Commentat. arithm.* 1, 1849, p. 193-209 [**E255a**].

E256 Specimen de usu observationum in mathesi pura. Auctore L. Eulero.

Description of numbers of the form $2a^2 + b^2$, and their use in testing whether a given number is a prime number.
Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 185-230.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on November 22, 1753; according to the records, it was presented to the St. Petersburg Academy on September 30, 1754.
Abstract: *A. a. O., Summarium dissertationum*, p. 19-21.
Reviewed in *Nova acta erud.* 1761, p. 444-445.
Reprinted in *Commentat. arithm.* 1, 1849, p. 174-192 [**E256a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E257 De frictione corporum rotantium. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 233-270 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy

on October 25, 1753; according to the records, it was presented to the St. Petersburg Academy on September 30, 1754.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-24.

E258 Principia motus fluidorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 271-311 + 1 diagram. According to C. G. J. Jacobi, a treatise with thie title: "De motu fluidorum in genere" was read to the Berlin Academy on August 31, 1752; the St. Petersburg presentation date is unknown. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-26.

E259 De motu et reactione aquae per tubos mobiles transfluentis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 312-337 + 1 diagram. The presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 27-29.

E260 Tentamen theoriae de frictione fluidorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 6, (1756/7), 1761, p. 338-388 + 2 diagrams. According to C. G. J. Jacobi, a treatise with the title "Tentamen theoriae de frictione solidorum (!)" was read to the Berlin Academy on December 2, 1751; according to the records, it was presented to the St. Petersburg Academy on June 17, 1754.
Abstract: *A. a. O., Summarium dissertationum*, p. 29-32.

E261 Specimen alterum methodi novae quantitates transcendentes inter se comparandi. De comparatione arcuum ellipsis. Auctore L. Eulero.

About properties of the elliptic integral.
Novi commentarii academiae scientiarum Petropolitanae 7, (1758/9), 1761, p. 3-48 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 9, 1755; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 7-8.
Reviewed in *Nova acta erud*. 1762, p. 403.
Also see 1862 (E818).

E262 Theoremata circa residua ex divisione potestatum relicta. Auctore L. Eulero.

About remainders; proof of Fermat's Theorem $a^{p-1} \equiv 1 \pmod{p}$.
Novi commentarii academiae scientiarum Petropolitanae 7, (1758/9), 1761, p. 49-82. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 13, 1755; the St. Petersburg presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-9.

Reviewed in *Nova acta erud.* 1762, p. 403-404.
Reprinted in *Commentat. arithm*. 1, 1849, p. 260-273 [**E262a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E263 Specimen novae methodi curvarum quadraturas et rectificationes aliasque quantitates transcendentes inter se comparandi. Auctore L. Eulero.

About properties of the elliptic integral.
Novi commentarii academiae scientiarum Petropolitanae 7, (1758/9), 1761, p. 83-127 + 1 diagram. According to C. G. J. Jacobi, a treatise with the title "Specimen novae methodi quadraturas curvarum inveniendi" was read to the Berlin Academy on June 21, 1753; according to the records, it was presented to the St. Petersburg Academy on August 18, 1755.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-7.
Reviewed in *Nova acta erud*. 1762, p. 401-403.
Also see 1862 (E818).

E264 Demonstratio theorematis et solutio problematis in Actis Erud. Lipsiensibus propositorum. Auctore L. Eulero.

About properties of the elliptic integral. The theorem is: "Semissis ellipseos quaeque ita secatur ut partium differentia sit geometrice assignabilis." The problem is: "Constructio geometrica arcus postulatur, qui sit semissis quadrantis elliptici." Also see 1754 (E211).
Novi commentarii academiae scientiarum Petropolitanae 7, (1758/9), 1761, p. 128-162 + 9 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 13, 1755; according to the records, it was presented to the St. Petersburg Academy on August 18, 1755.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-11.
Reviewed in *Nova acta erud*. 1762, p. 404-405.

E265 De aequationibus differentialibus secundi gradus. Auctore L. Eulero.

Integration of second-order differential equations using the method of integrated factors.
Novi commentarii academiae scientiarum Petropolitanae 7, (1758/9), 1761, p. 163-202. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on December 16, 1756; according to the records, it was presented to the St. Petersburg Academy on January 13, 1757.
Abstract: *A. a. O., Summarium dissertationum*, p. 11-12.
Reviewed in *Nova acta erud.* 1762, p. 405-406.

1762.[6]

E266 Constructio lentium objectivarum ex duplici vitro quae neque confusionem a figura sphaerica oriundam, neque dispersionem colorum pariant. Auctore Leonhardo Eulero.

[6] Brunet listed the treatise "Meditationes de perturbatione motus cometarum ab attractione planetarum orta" (St. Petersburg 1762) as the work of Leonhard Euler. According to the title page, this piece was written by Johann Albrecht Euler (See *Manuel du libraire* 2, éd. 5, Paris 1861, p. 1093).

Dissertatio occasione quaestionis de perfectione telescopiorum ab imperiali academia scientiarum Petropolitana pro praemio propositae conscripta. Petropoli typis academiae scientiarum 1762.

Kgl. Library in Berlin.
Example used: Polytechn. Lib. in Zurich.
4^0, 31 pages + 1 diagram. According to C. G. J. Jacobi, a treatise with the title "Constructio lentium objectivarum ex duplici vitro" was presented to the Berlin Academy on March 12, 1761, and J. A. Euler, who cites this work of his father in the *Mém. de l'acad. d. sc. de Berlin* [17], (1761), 1768, p. 231, remarks that this treatise was not printed in the *Mémoires*. According to the records, the treatise was presented to the St. Petersburg Academy on May 17, 1762.
A short report on the basic content of this treatise is found in the little piece by Joh. Ludw. Steiner: *Neue Entdeckungen betreffend die Refraktion oder Strahlenbrechung in Gläsern ... von Herrn Euler* (Zurich, by Heidigger und Co. 1765, 20 pages, 8^0) [**E266a**].

E267 Extrait d'une lettre de M. Euler, écrite à M. Du Hamel le 3 Février 1756.

"Sur la perfection des lunettes"
Memoires de l'académie des sciences de Paris, 1756, 214-216. According to a note on p. 214, it was presented to the St. Petersburg Academy on March 6, 1757.
Abstract: *A. a. O., Histoire*, p. 125.
Reprinted in *Mém. de l'acad. d. sc. de Paris*, 1756, Amsterdam 1768, p. 338-341 [**E267a**].

E268 Lettre de M. Euler à M. de la Grange… Recherches dur la propogation des ébranlemens dans une (!) milieu élastique.

Mélanges de philosophie et de mathématique de la société royale de Turin 2, (1760/1), o. J. [1762], p. 1-10. Dated January 1, 1760.
Reprinted in *Opera Postuma* 1, 1862, p. 561 (only the beginning and end) [**E268a**].
Reprinted in *Œuvres de Lagrange* 14, Paris 1892, p. 178-188 (complete, but with the incorrect date "1er juin 1760") [**E268b**].

1763.

E269 De integratione aequationum differentialium. Auctore L. Eulero.

Integration of the equation $Mdx + Ndy = 0$ using the method of integrated factors; the Riccati Equation is treated as a special case.
Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 3-63. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on June 12, 1755, and another (or the same one?) on October 21, 1756; according to the records, it was presented to the St. Petersburg Academy on January 13, 1757.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-12.
Reviewed in *Nova acta erud*. 1763, p. 241-247.

E270 Solutio problematis de investigatione trium numerorum, quorum tam summa, quam productum, nec non summa productorum ex binis, sint numeri quadrati. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 64-73. According to C. G. J. Jacobi, a treatise with almost the same title appears to have been read to the Berlin Academy on February 27, 1755; ccording to the records, it was presented to the St. Petersburg Academy on March 8, 1756.
Abstract: *A. a. O., Summarium dissertationum*, p. 12-14.
Reviewed in *Nova acta erud.* 1763, p. 247-249.
Reprinted in *Commentat. arithm.* 1, 1849, p. 239-244 [**E270a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E271 Theoremata arithmetica nova methodo demonstrata. Auctore L. Eulero.

About the remainders which arise when the terms of an arithmetic or geometric sequence are all divided by the same number. Theorems about prime numbers.
Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 74-104.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on June 8, 1758; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-18.
Reviewed in *Nova acta erud.* 1763, p. 249-251.
Reprinted in *Commentat. arithm.* 1, 1849, p. 274-286 [**E271a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E272 Supplementum quorundam theorematum arithmeticorum quae in nonnullis demonstrationibus supponuntur. Auctore L. Eulero.

About description of numbers of the form $3a^2 + b^2$.
Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 105-128.
According to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 18-20.
Reviewed in *Nova acta erud.* 1763, p. 251-253.
Reprinted in *Commentat. arithm.* 1, 1849, p. 287-296 [**E272a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E273 Consideratio formularum, quarum integratio per arcus sectionum conicarum absolvi potest. Auctore L. Eulero.

Processing integrals through elliptical integrals.
Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 129-149.
According to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-23.
Reviewed in *Nova acta erud.* 1763, p. 253-254.

E274 Constructio aequationis differentio-differentialis $Aydu^2 + (B + Cu)dudy + (D + Eu + Fuu)ddy = 0$, sumto elemento *du* constante. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 150-156.
According to C. G. J. Jacobi, a treatise with this title appears to have been read to the Berlin Academy on November 9, 1758; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-24.
Reviewed in *Nova acta erud.* 1763, p. 255.

E275 Annotationes in locum quendam Cartesii ad circuli quadraturam spectantem. Auctore L. Eulero.

Squaring the circle using an elementary geometric construction which is analytically expressed by the formula: $\frac{\sin s}{s} = \cos\frac{1}{2}s \cdot \cos\frac{1}{4}s \cdot \cos\frac{1}{8}s \cdots$
Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 157-168 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 20, 1758; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-27.
Reviewed in *Nova acta erud.* 1763, p. 255-258.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E276 Dilucidationes de resistentia fluidorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 197-229 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on April 8, 1756; according to the records, it was presented to the St. Petersburg Academy on January 13, 1757.
Abstract: *A. a. O., Summarium dissertationum*, p. 34-38.
Reviewed in *Nova acta erud.* 1763, p. 262-266.

E277 Principia theoriae machinarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 230-253.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 26, 1756; according to the records, it was presented to the St. Petersburg Academy on March 8, 1756.
Abstract: *A. a. O., Summarium dissertationum*, p. 39-43.
Reviewed in *Nova acta erud.* 1763, p. 266-269.

E278 De motu et attritu lentium dum super catinis poliuntur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 8, (1760/1), 1763, p. 254-270 + 5 figures. According to C. G. J. Jacobi, a treatise with almost the same title was read to the Berlin Academy on November 24, 1757; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 43-46.
Reviewed in *Nova acta erud*. 1763, p. 269-271.

Also see 1750 (E149A).

1764.

E279 De resolutione formularum quadraticarum indeterminatarum per numeros integros. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 3-39. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 21, 1758; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-8.
Reviewed in *Nova acta erud*. 1765, p. 241-244.
Reprinted in *Commentat. arithm*. 1, 1849, p. 297-315 [**E279a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E280 De progressionibus arcuum circularium quorum tangentes secundum certam legem procedunt. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 40-52. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on November 23, 1758; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-10.
Reviewed in *Nova acta erud*. 1765, p. 244-245.

E281 Specimen algorithmi singularis. Auctore L. Eulero.

On the theory of continued fractions.
Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 53-69. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 21, 1757; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-13.
Reviewed in *Nova acta erud*. 1765, p. 245-248.

E282 De resolutione aequationum cujusvis gradus. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 70-98. According to C. G. J. Jacobi, a treatise with the title "Resolutio aequationum cujusvis generis" was read to the Berlin Academy on May 3, 1753; according to the records, it was presented to the St. Petersburg Academy on October 15, 1759. The manuscript of the printed treatise, with the title "De resolutione aequationum cujusvis generis," can be found in the archive of the Berlin Academy, according to Jacobi.
Abstract: *A. a. O., Summarium dissertationum*, p. 13-16.
Reviewed in *Nova acta erud*. 1765, p. 248-250.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E282A Translated into German: Von der Auflösung der Gleichungen eines jeden Grades. Von Leonhard Euler.

Leonhard Eulers Eileitung in die Analysis des Unendlichen 3, Berlin 1791, p. 24-55. Translated by J. A. Chr. Michelsen.

E282B Translated into Russian: О рѣшеніи уравненій каждой степени. Сочиненіе Леонарда Эйлера.

Труды академіи наукъ 2, St. Petersburg 1823, p. 1-30. According to a report by V. Bobynin.

E283 De numeris primis valde magnis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 99-153.
According to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 16-18.
Reviewed in *Nova acta erud*. 1765, p. 250-251.
Reprinted in *Commentat. arithm*. 1, 1849, p. 356-378 [**E283a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E284 De resolutione aequationis $dy + ayy\,dx = bx^m\,dx$. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 154-169.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 6, 1742; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 18-21.
Reviewed in *Nova acta erud*. 1765, p. 251-254.

E285 Investigatio functionum ex data differentialium conditione. Auctore L. Eulero.

Integration of many first-order partial differential equations with two independent variables.
Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 170-212.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 8, 1759; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 22-23.
Reviewed in *Nova acta erud*. 1765, p. 254-256.

E286 De motu vibratorio fili flexilis, corpusculis quotcunque onusti. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 215-245 + 1 diagram. According to C. G. J. Jacobi, a treatise with approximately the same title was read to the Berlin Academy on November 15, 1759; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-26.
Reviewed in *Nova acta erud*. 1765, p. 256-258.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E287 De motu vibratorio cordarum inaequaliter crassarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 246-304 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 21, 1760; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 27-30.
Reviewed in *Nova acta erud*. 1765, p. 258-260.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E288 Cogitationes de aggeribus construendis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 9, (1762/3), 1764, p. 352-378 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on July 5, 1759; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 36-38.
Reviewed in *Nova acta erud*. 1765, p. 265-266.

1765.

E289 Theoria motus corporum solidorum seu rigidorum ex primis nostrae cognitionis principiis stabilita et ad omnes motus, qui in hujusmodi corpora cadere possunt, accommodata. Auctore Leonh. Eulero academiae regiae scient. Borussicae directore academiae imper. Petropol. socio

honorario et academiarum scient. regiarum Parisinae et Londinensis membro. Rostochii et Gryphiswaldiae litteris et impensis A. F. Röse. MDCCLXV.

Kgl. Library in Berlin
Example used: G. E.
4^0, (32) + 520 pages + 15 diagrams. After the "Praefatio" (see below) comes a "Introductio continens illustrationes et additiones necessarias de motu punctorum" in 6 chapters: 1. Consideratio motus in genere. 2. De internis motus principiis. 3. De causis motus externis seu viribus. 4. De mensuris absolutis ex lapsu gravium petitis. 5. De motu absoluto corpusculorum a viribus quibuscunque actorum. 6. De motu respectivo corpusculorum, a viribus quibuscunque sollicitatorum. Then the main section "Tractatus de motu corporum rigidorum" follows in 19 chapters: 1. De motu progressivo corporum rigidorum. 2. De motu gyratorio circa axem fixum a nullis viribus turbato. 3. De motus gyratorii generatione. 4. De perturbatione motus gyratorii a viribus quibuscunque orta. 5. De momento inertiae. 6. Investigatio momenti inertiae in corporibus homogeneis. 7. De motu oscillatorio corporum gravium. 8. De axe gyrationis libero motuque corporum rigidorum circa tales axes. 9. De prima motus generatione in corporibus rigidis. 10. De variatione momentanea axia gyrationis a viribus producta. 11. De motu libero corporum rigidorum ternis axibus principalibus paribus praeditorum et a nullis viribus sollicitatorum. 12. De motu libero corporum rigidorum duobus axibus principalibus paribus praeditorum et nullis viribus sollicitatorum. 13. De motu libero corporum rigidorum ternis axibus principalibus disparibus praeditorum et nullis viribus sollicitatorum. 14. De motu turbinum super plano horizontali, in quibus omnia momenta inertiae sunt inter se aequalia. 15. De motu libero corporum rigidorum a viribus quibuscunque sollicitatorum. 16. De motu gyratorio seu vertiginis corporum coelestium. 17. Plenior explicatio motus turbinum super plano horizontali, semota frictione. 18. De motu corporum basi sphaerica praeditorum super plano horizontali. 19. De motu corporum cylindricorum super plano horizontali. At the end a "Supplementum de motu corporum rigidorum a frictione perturbato" is found with 5 chapters: 1. De frictione in genere. 2. De motu progressivo corporum gravium a frictione impedito. 3. De motu gyratorio corporum gravium circa axem fixum a frictione retardato. 4. De motu turbinum in cuspidem desinentium super plano horizontali, frictionis habita ratione. 5. De motu globorum centrum inertiae in ipsorum centro situm habentium super plano horizontali. The foreword, which offers an abstract of the work, is by W. J. G. Karsten, who supervised the printing. Karsten mentions that the work was completed by 1760 and that he had received the manuscript at the beginning of 1761.
Reviewed in *Götting. gel. Anz.* 1765, p. 689-694. *Journal encyclopèdique* 6:3, 1765, p. 3-13; 7:1, 1765, p. 14-22. *Allg. deutche Bibl*. 3, 1766, p. 37-44.

E289[2] Theoria motus corporum solidorum seu rigidorum ex primis nostrae cognitionis principiis stabilita et ad omnes motus, qui in hujusmodi corpora cadere possunt, accommodata. Auctore Leonh. Eulero academiae regiae scient. Borussicae directore academiae imperat. Petropol. socio honorario et academiarum scient. regiarum Parisinae et Londinensis membro. Editio nova, desideratissimi auctoris supplementis locupletata et emendata. Gryphiswaldiae litteris et impensis A. F. Röse. MDCCXC.

Kgl. Library in Berlin
Example used: G. E.

4^0, (34) + 624 pages + 18 diagrams. The supplements mentioned in the title are found on p. 449-504 (Addimentum cap. I-III), p. 568-592 (Supplementum cap. VI-VII), p. 595-624 (Appendix). They are listed below: see1776 (E478, 479); 1784 (E568, 569); 1786 (E607); 1787 (E612). Reviewed in *Götting. gel. Anz.* 1790, p. 1266-1270 (Kästner). *Allg. deutche Bibl.* 98:2, 1797, p. 320-326.

E289A Translated into German: Leonhard Euler's Theorie der Bewegung fester oder starrer Körper mit Anmerkungen und Erläuterungen herausgegeben von J. Ph. Wolfers. Greifswald 1853. C. A. Koch's Verlagshandlung.

Kgl. Library in Berlin
Example used: G. E.
8^0, X + 742 + (4) + 63 pages + 9 diagrams. 6 appendices written by Euler for the second edition are found here on p. 557-620, 676-742 (also see E478A, 479A, 568A, 569A, 607A, 612A).

E290? Геометрія для употребленія въ академической гимназіи. Сочиненіе Леонарда Эйлера. Перевод съ Латинскаго. Съ фигурами. Санкт-петербургъ 1765.

8^0. Geometry for the use of the academic school. Written by Leonhard Euler. Traslated from Latin. With figures. St. Petersburg 1765. According to Bobynin's Russian physicist/mathematician bibliography 2:1, (1889), p. 13. Bobynin did not see the book himself, instead his statement was based on older bibliographic work, but the publisher of that work may not have seen the book either and the statement appears very suspicious to me; admittedly fragments of an elementary geometry textbook are found in Euler's estate, but these were written in German (see *Commentat. arithm.* 1, 1849, p. LXXXII).

E291 Recherches sur la connoisance mécanique des corps. Par M. Euler.

About the moment of inertia.
Mémoires de l'académie des sciences de Berlin [14], (1758), 1756, p. 131-153 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on July 6, 1758.

E292 Du mouvement de rotation des corps solides autour d'un axe variable. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [14], (1758), 1756, p. 154-193 + 1 diagram. Possibly the treatise "Du mouvement d'un corps solide quelconque, lorsqu'il tourne autour d'un axe mobile," which was presented to the Berlin Academy on October 7, 1751, according to C. G. J. Jacobi.
Abstract with the title: "Reproduction of Euler's memoir of 1758 on the rotation of a solid body"; *Quarterly journal of mathematics* 9, 1868, p. 361-373 (A. Cayley) [**E292a**].

E293 Remarques générales sur le mouvement diurne des planètes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [14], (1758), 1756, p. 194-218 + 1 diagram. According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on January 12, 1758.

E294 Remarques sur quelques passages, qui se trouvent dans le trois volumes des Opuscules Mathématiques, de M. d'Alembert.

About the refraction of beams of light and the perception of the eyes.
Journal encyclopédique 1765: 2: 3, p. 114-127. The publisher of the journal remarks: "Nous avons cru devoir donner littéralement cet article tel qu'il nous a été envoyé par M. Euler".

Also see 1763 (E266A).

1766.

E295 De reductione formularum integralium ad rectificationem ellipsis ac hyperbolae. Auctore L. Eulero.

About properties of the elliptic integral.
Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 3-50. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on October 4, 1759; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-9.
Reviewed in *Nova acta erud*. 1766, p. 121-124.

E296 Elementa calculi variationum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 51-93. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 16, 1756; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 9-13.
Reviewed in *Nova acta erud*. 1766, p. 124-128.

E297 Analytica explicatio methodi maximorum et minimorum. Auctore L. Eulero.

Calculus of variations.
Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 94-134.
According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 9, 1756; according to the records, it was presented to the St. Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 9-13 (see above)
Reviewed in *Nova acta erud*. 1766, p. 124-128 (see above)

E298 De insigni promotione methodi tangentium inversae. Auctore L. Eulero.

About the problems which come from mixed differential and difference equations. For example: the problem of reciprocal trajectory.
Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 135-155 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 3, 1761; according to the records, it was presented to the St. Petersburg Academy on May 17, 1762.
Abstract: *A. a. O., Summarium dissertationum*, p. 14-16.
Reviewed in *Nova acta erud*. 1766, p. 128-130.

E299 Dilucidationes de tautochronis in medio resistente. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 156-178 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on May 28, 1761; according to the records, it was presented to the St. Petersburg Academy on May 17, 1762.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-20.
Reviewed in *Nova acta erud*. 1766, p. 130-132.

E300 Demonstratio theorematis Bernoulliani quod ex evolutione curvae cujuscinque rectangulae in infinitum continuata tandem cycloides nascantur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 179-198 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on February 12, 1761; according to the records, it was presented to the St. Petersburg Academy on May 17, 1762.
Abstract: *A. a. O., Summarium dissertationum*, p. 20-23.
Reviewed in *Nova acta erud*. 1766, p. 132-137.

E301 De motu corporis ad duo centra virium fixa attracti. Auctore L. Eulero.

The case where the point moves in a plane will be solved using elliptical integrals.
Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 207-242 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on April 5, 1759; according to the records, it was presented to the Petersburg Academy on December 1, 1760.
Abstract: *A. a. O., Summarium dissertationum*, p. 26-30.
Reviewed in *Nova acta erud*. 1766, p. 137-141.

E302 De motu vibratorio tympanorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 243-260 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 22, 1761. Euler himself mentions in his letter to Lagrange that he read several treatises "sur le son des cloches et des tambours ou timbales" to the academy a short time before January 1, 1760 (see *Opera postuma* 1, 1862, p. 561). According to the records, it was presented to the Petersburg Academy on May 17, 1762.

Abstract: *A. a. O., Summarium dissertationum*, p. 30-32.
Reviewed in *Nova acta erud*. 1766, p. 141-143.

E303 Tentamen de sono campanarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 261-281 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 25, 1760 (also see E302); according to the records, it was presented to the Petersburg Academy on May 17, 1762.
Abstract: *A. a. O., Summarium dissertationum*, p. 30-32 (see above).
Reviewed in *Nova acta erud*. 1766, p. 141-143 (see above).

E304 Considerationes de motu corporum coelestium. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 10, (1764), 1766, p. 544-558 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on April 22, 1762; according to the records, it was presented to the Petersburg Academy on May 17, 1762.
Abstract: *A. a. O., Summarium dissertationum*, p. 66-67.
Reviewed in *Nova acta erud*. 1766, p. 178-179.

E305 De la propagation du son. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [15], (1759), 1766, p. 185-209 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 1, 1759.

E306 Supplément aux recherches sur la propagation du son. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [15], (1759), 1766, p. 210-240 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on December 13, 1759.

E307 Continuation des recherches sur la propatation du son. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [15], (1759), 1766, p. 241-264 + 1 diagram. The presentation date is unknown. The treatise was presumably presented to the Berlin Academy after December 13, 1759.

E308 Recherches sur le mouvement de rotation des corps célestes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [15], (1759), 1766, p. 265-309 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 18, 1759.

E309 Solution d'une question curieuse que ne pariot soumise à aucune analyse, par M. Euler.

About the knight's jump.
Mémoires de l'académie des sciences de Berlin [15], (1759), 1766, p. 310-337. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on March 2, 1758. Reprinted in *Commentat. arithm.* 1, 1849, p. 337-355 [**E309a**].
Edition with the title: "An account of Euler's method of solving a problem, relative to the move of the knight at the game of chess"; *The journal of science and the arts* 3, London 1817, p. 72-77 [**E309b**].

E310 Nouvelle méthode d'éliminer les quantités inconnues des équations. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 91-104. According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on February 10, 1752. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E311 Recherches sur les microscopes simples et les moyens de les perfectionner. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 105-116 + 2 figures. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 26, 1761.

E312 Recherches sur les microscopes à trois verres, et les moyens de les perfectionner. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 117-143 + 3 figures. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 4, 1762.

E313 Sur l'avantage du banquier au jeu de Pharaon. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 144-164. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on February 27, 1755, and another (or the same?) on July 20, 1758.

E314 Conjecture sur la raison de quelques dissonances généralement reçues dans la musique. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 165-173. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on July 10, 1760. Reprinted in *Œuvres complètes d'Euler* [**E314a**].
Republished as: Euler, *Musique mathématique*, Paris 1865, p. 217-224. [**E314b**].

E315 Du véritable caractère de la musique moderne. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 174-199. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 1 and 22, 1764.
Reprinted in *Œuvres complètes d'Euler* [**E315a**].
Republished as Euler, *Musique mathématique*, Paris 1865, p. 225-251 [**E315b**].

E316 Des lunettes à trois verres qui représentent les objets debout. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [20], (1764), 1766, p. 200-239 + 1 diagram. According to C. G. J. Jacobi, a treatise on this subject was presented to the Berlin Academy on February 2, 1758, and another (or the same?) on May 3, 1759. The manuscript of the treatise presented on May 3, 1759 can be found in the archive of the Berlin Academy, according to P. H. Fuss.

E317 Éclaircissemens sur le mouvement des cordes vibrantes. Par M. Euler.

Mélanges de philosophie et de mathématique de la société royale de Turin 3, (1762/5), 1766, p. 1-26 (second pagination) + 1 diagram. Euler probably sent this treatise, as well as the four following ones, to Lagrange on February 16, 1765 (see Euler's letter to Lagrange on this date; *Opera Postuma* 1, 1862, p. 566).
Reviewed in *Nova acta erud.* 1769, p. 138-139.

E318 Recherches sur le mouvement des cordes inégalement grosses. Par M. Euler.

Mélanges de philosophie et de mathématique de la société royale de Turin 3, (1762/5), 1766, p. 27-59 (second pagination) + 1 diagram. See the note for E317.

E319 Recherches sur l'intégration de l'équation $\left(\frac{ddz}{dt^2}\right) = aa\left(\frac{ddz}{dx^2}\right) + bx\left(\frac{dz}{dx}\right) + \frac{c}{xx}z$. Par M. Euler.

Mélanges de philosophie et de mathématique de la société royale de Turin 3, (1762/5), 1766, p. 60-91 (second pagination). See the note for E317.

E320 Recherches sur la construction des nouvelles lunettes à 5 et 6 verres et leur perfection ultérieure. Par M. Euler.

Mélanges de philosophie et de mathématique de la société royale de Turin 3, (1762/5), 1766, p. 92-151 (second pagination) + 1 diagram. See the note for E317. According to C. G. J. Jacobi, a treatise with approximately the same title was presented to the Berlin Academy on October 20, 1763.

E321 Observationes circa integralia formularum $\int x^{p-1} dx(1-x)^{\frac{q}{n}-1}$ posito post integrationem $x = 1$. Auctore L. Eulero.

Mélanges de philosophie et de mathématique de la société royale de Turin 3, (1762/5), 1766, p. 156-177 (second pagination). See the note for E317.

Also see 1759 (E239a), 1862 (E844a).

1767.

E322 De usu functionum discontinuarum in analysi. Auctore L. Eulero.

After various investigations into the basic concepts of infinitessimal calculation, Euler concludes that discontinuous functions can't be used if there is only one independent variable, but are unavoidable when dealing with functions of at least two independent variables.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 3-27 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on December 9, 1762; according to the records, it was presented to the Petersburg Academy on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum,* p. 5-7.
Reviewed in *Nova acta erud.* 1768, p. 385-387.

E323 De usu novi algorithmi in problemate Pelliano solvendo. Auctore L. Eulero.

About a method of solving the equation $lx^2 + mx + n = y^2$ using whole numbers.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 28-66. According to the records it was presented to the Petersburg Academy on October 15, 1759, and once again on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 7-9.
Reviewed in *Nova acta erud.* 1768, p. 387-388.
Reprinted in *Commentat. arithm*. 1, 1849, p. 316-336 [**E323a**].

E324 Proprietates triangulorum, quorum anguli certam inter se tenent rationem. Auctore L. Eulero.

The equation between the sides will be derived.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 67-102 + 6 figures. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on September 22, 1763; according to the records, it was presented to the Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-12.
Reviewed in *Nova acta erud.* 1768, p. 388-390.

E325 Solutio facilis problematum quorundam (!) geometricorum difficillimorum. Auctore L. Eulero.

About remarkable points of the triangle.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 103-123 + 1 diagram. According to the records, it was presented to the Petersburg Academy on December 12, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 12-14.
Reviewed in *Nova acta erud*. 1768, p. 390-391.
A version was published in *Arch. d. Math*. 26, 1856, p. 343-350 (Grunert) [**E325a**].

E326 Observationes analyticae. Auctore L. Eulero.

About the series $1 + x + 3x^2 + 7x^3 + 19x^4 + 51x^5 + \ldots$ and related series.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 124-143.
According to the records, it was presented to the Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 14-16.
Reviewed in *Nova acta erud*. 1768, p. 391-392.

E327 De motu rectilineo trium corporum se mutuo attrahentium. Auctore L. Eulero.

The three-body problem on the straight line.
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 144-151.
According to the records, it was presented to the Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-20.
Reviewed in *Nova acta erud*. 1768, p. 393-395.

E328 De motu corporis ad duo centra virium fixa attracti. Auctore L. Eulero.

It will be supposed that the path of the pont is not a planar curve (see E301).
Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 152-184 + 1 diagram. According to C. G. J. Jacobi, a treatise on this subject was read to the Berlin Academy on July 15, 1763; according to the records, it was presented to the Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-20 (see above).
Reviewed in *Nova acta erud*. 1768, p. 393-395 (see above).

E329 De phaenomenis coeli per segmenta sphaerica diaphana spectati. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 185-204 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 20, 1763; according to the records, it was presented to the Petersburg Academy on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 20- 22.
Reviewed in *Nova acta erud*. 1768, p. 395-396.

E330 Supplementum de figura dentium rotarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 207-231 + 4 diagrams. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on October 14, 1762; according to the records, it was presented to the Petersburg Academy on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-24.
Reviewed in *Nova acta erud*. 1768, p. 396-397.

E331 De motu fluidorum a diverso caloris gradu oriundo. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 11, (1765), 1767, p. 232-267 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on January 19, 1764; according to the records, it was presented to the Petersburg Academy on August 23, 1764.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-27.
Reviewed in *Nova acta erud*. 1768, p. 397-399.

E332 Recherches sur le mouvement des rivières. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 101-118; a figure is occassionally cited, however it appears not to exist. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on May 6, 1751. The manuscript of the printed treatise can be found in the archive of the Berlin Academy, according to Jacobi.

E333 Recherches sur la courbure des surfaces. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 119-143 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 8, 1763.

E334 Recherches générales sur la mortalité et la multiplication du genre humain. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 144-164. The presentation date is unknown.

E335 Sur les rentes viagères, par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 165-175. The presentation date is unknown.

E336 Du mouvement d'un corps solide quelconque lorsqu'il tourne autour d'un axe mobile. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 176-227 + 1 diagram. According to C. G. J. Jacobi, a treatise with a similar title was presented to the Berlin Academy

on November 9, 1758 (see 1765, E292). The manuscript of the printed treatise except the last three paragraphs can be found in the archive of the Berlin Academy, according to Jacobi.

E337 Problème. Un corps étant attiré en raison réciproque quarrée des distances vers deux points fixes donnés, trouver les cas où la courbe décrite par ce corps sera algébrique, résolu par M. Euler.

Mémoires de l'académie des sciences de Berlin [16], (1760), 1767, p. 228-249 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on October 28, 1762.

E338 Sur la probabilité des séquences dans la lotterie Génoise. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [21], (1765), 1767, p. 191-230. The presentation date is unknown.

E339 Sur le mouvement d'un corde, que au commencement n'a été ébranlée que dans un partie, par M. Euler.

Mémoires de l'académie des sciences de Berlin [21], (1765), 1767, p. 307-334 + 3 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on July 18, 1765.

E340 Éclaircissements plus détaillés sur la génération et la propagation du son, et sur la formation de l'écho, par M. Euler.

Mémoires de l'académie des sciences de Berlin [21], (1765), 1767, p. 335-363 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 19 and 26, 1765.

E341 Извѣстіе о новомъ средствѣ къ размноженію хлѣба, и о происходящей отъ онаго пользѣ, которая состоимъ въ томъ, что симъ средствомъ на посѣвъ исходитъ сѣмянъ гораздо меньше противъ обыкновеннаго сѣянія. Леонардъ Ейлеръ.

Труды вольнаго зкономическаго общества, къ поощренію въ Россіи земледѣлія и домостроительства (St. Petersburg) 6, 1767, p. 150-155.

E341A Translated into German: Nachricht von einem neuen Mittel zur Vermehrung des Getreides, und dem großen Nutzen desselben, welcher in einer außerordentlichen Ersparung des Saamens besteht.

Abhandlung der freyen ökonomischen Gesellschaft zu St. Petersburg 6, (St. Petersburg, Riga and Leipzig), 1775, p. 109-113.

E342 Institutionum calculi integralis volumen primum in quo methodus integrandi a primis principiis usque ad integrationem aequationum differentialium primi gradus pertractatur. Auctore Leonhardo Eulero acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin, et Londin. Petropoli impensis academiae imperialis scientiarum 1768.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (4) + 542 pages. First contains the "Praenotanda de calculo integrali in genere" and then three "sectiones." The "sectio prima, de integratione formularum differentialum" contains 9 chapters: 1. De integratione formularum differentialium rationalium. 2. De integratione formularum differentialium irratioinalium. 3. De integratione formularum differentialium per series infinitas. 4. De integratione formularum logarithmicarum et exponentialium. 5. De integratione formularum angulos sinusve angulorum implicantium. 6. De evolutione integralium per series secundum sinus cosinusve angulorum multiplorum progredientes. 7. Methodus genaralis integralis integralia quaecunque proxime inveniendi. 8. De valoribus integralium, quos certis tantum casibus recipiunt. 9. De evolutione integralium per producta infinita. The "sectio secunda, de integratione aequationum differentialum" contains 7 chapters: 1. De separatione variabilium. 2. De integratione aequationum differentialium ope multipliclatorium. 3. De investigatione aequationum differentialium, quae per multiplicatores datae formae integrabiles reddantur. 4. De integratione particulari aequationum differentialium. 5. De comparatione quantitatum transcendentium in forma $\int \frac{pdx}{\sqrt{(A+2Bx+Cxx)}}$ contentarum. 6.De comparatione quantitatum transcendentium in forma $\int \frac{pdz}{\sqrt{(A+2Bz+Czz+2Dz^3+Ez^4)}}$ contentarum. 7. De integratione aequationum differentialium per approximationem. - The "sectio tertia, de resolutione aequationum differentialium, in quibus differentialia ad plures dimensiones assurgunt vel adeo transcendentes implicantur" is not divided into chapters. According to the records, the work was presented to the St. Petersburg Academy on August 7, 1766. According to Euler's letter to Goldbach on December 17, 1763, the whole work had been finished for many months (Fuss, *Corr.* I, p. 671), and one can see from Euler's letter to Lagrange on October 2, 1759, that a meaningful portion of the work was already edited (*Opera Postuma* 1, 1862, p. 558). Reviewed in *Journ. des sçav*. 1769 déc., 1770 mai. *Allg. deutsche Bibl*. 11: 2, 1770, p. 6-16. The first two volumes were translated into French by J. J. Querret (1783-1839), but the translation was not printed (see *Bullet. de bibliogr., d'hist. et de biogr. mathèm.* 1, 1855, p. 105). Continued in 1769 (E366), 1770 (E385), and 1794 (E660).

E342² Leonhardi Euleri institutionum calculi integralis volumen primum in quo methodus integrandi a primis principiis usque ad integrationem aequationum differentialium primi gradus pertractatur. Editio altera et correctior. Petropoli impensis academiae imperialis scientiarum 1792.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, (4) + 466 pages. Continued in 1769 (E366²), 1770 (E385²), 1794 (E660).

E342[3] Leonhardi Euleri institutionum calculi integralis volumen primum in quo methodus integrandi a primis principiis usque ad integrationem aequationum differentialium primi gradus pertractatur. Editio tertia. Petropoli, impensis academiae imperialis scientiarum1824.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (4) + 463 + (1) pages. Continued in 1769 (E366[3]), 1770 (E385[3]), 1794 (E660[2]).

E342A Translated into German: Leonhard Euler's vollständige Anleitung zur Integralrechnung. Aus dem Lateinischen ins Deutsche übersetzt von Joseph Salomon, k. k. Professor. Erster Band, welcher die Integrationsmethoden von den ersten Principien bis zur Integration der Differenzialgleichungen des ersten Grades enthält. Wien, Carl Gerold 1828.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, VIII + 439 pages. Continued in 1769 (E366A), 1770 (E385A), and 1794 (E660A).

E343 Lettres à une princesse d'Allemagne sur divers sujets de physique & de philosophie Tome premier A Saint Pétersbourg de l'imprimerie de l'académie impériale des sciences MDCCLXVIII.

University Lib. in Gottingen.
Example Used: Lib. of the Stockholm Sci. Acad.
8^0, XII + 314 + 1 diagram. Anonymous; it was generally known that the "Lettres" were written by Euler by the time they were published (see, for example, the letter from Lagrange to d'Alembert on June 2, 1769; *Oeuvres de Lagrange* 13, Paris 1882, p. 132). The first part contains letters 1-79 (April 19 – November 25, 1760). The letters treat the following subjects: 1. De l'étendue. 2. De la vitesse. 3. Du son et de sa vitesse. 4. Des consonances et des dissonances. 5. De l'unisson et des octaves. 6. Des autres consonances. 7. Des douze tons du clavecin. 8. Sur les agrémens d'une belle musique. 9. Sur la compression de l'aire. 10. Sur la raréfaction, sur l'élasticité de l'air. 11. Sur la pésanteur de l'aire. 12. De l'atmosphère et du baromètre. 13. Des fusils à vent, et sur l'état de compression de l'air dans la poudre à canon. 14. Sur l'effet que la chaleur et le froid produisent dans tous les corps, et sur les pyromètres et thermomètres. 15. Des changemens que la chaleur et le froid produisent dans l'atmosphère. 16. Pourquoi on éprouve par tout et dans toutes les saisons le même degré de froid lorsqu'on monte sur les plus hautes montagnes, aussi bien que lorsqu'on descend dans les caves les plus profondes. 17. Sur les raïons de la lumière et sur les sytèmes de Descartes et de Newton. 18. Sur les inconvéniens qu'on rencontre dans ce dernier système de l'émanation. 19. Exposition d'un autre système sur la nature des raïons et de la lumière. 20. Sur la propagation de la lumière. 21. Digression sur l'étendue du monde, ensuite sur la nature du soleil et de ses raïons. 22. Éclaircissemens ultérieurs sur la nature des corps luisans d'eux-mêmes et sur la différence entre ces corps et les corps opaques illuminés. 23. Sur la manière dont les corps opaques nous deviennent visibles et explication du sentiment de Newton, qui en met la cause dans la réflexion des raïons. 24. Examen et réfutaion de ce sentiment. 25-26. Autre explication de la manière dont les corps opaques éclairés nous sont visibles. 27. Fin de cette explication, et sur la clarté et la couleur des corps opaques éclairés. 28. Sur la nture des couleurs en particulier. 29. Sur la transparence des corps relative au passage des raïons. 30. Sur le passage des raïons de lumière par les milieux transparens et sur leur réfraction. 31. Sur la réfraction des raïons de diverses couleurs. 32. Sur le bleu du ciel. 33. Sur l'affoiblissement des raïons qui partent d'un point

lumineux éloigné et sur l'angle visuel. 34. Sur ce que le jugement supplée à la vision. 35. Explication de quelques phénomènes relatifs à l'optique. 36. Sur l'ombre. 37. De la catoptrique et sur la réflexion des raïons par des miroirs planes en particulier. 38. Sur la réflexion des raïons par des miroirs convexes et concaves et sur les miroirs ardens. 39. De la dioptrique. 40. Continuation de la même matière; en particulier des verres ardens et de leurs foyers. 41. Sur la vision et la structure de l'œil. 42. Continuation et contemplation des merveilles qu'on découvre dans la structure de l'œil. 43. Continuation, et en particulier sur la différence énorme entre l'œil d'un animal et l'œil artificiel, ou une chambre obscure. 44. Sur les autres perfections qu'on découvre dans la structure de l'œil. 45. Sur la gravité ou pésanteur considérée comme une propriété générale de tous les corps que nous connoissons. 46. Continuation du même sujet, et en particulier sur la gravité spécifique. 47. Sur quelques termes et mots relatifs à la pésanteur des corps et sur le vrai sens qu'on leur doit donner. 48. Réponse à quelques objections qu'on fait contre la figure sphérique de la terre et qui sont tirées de la pésanteur. 49. Sur la vraie direction et sur l'action de la gravité rélative (!) à la terre. 50. Sur la différente action de la gravité, en particulier à l'égard des différentes contrées et distances au centre de la terre. 51. Sur la gravité de la lune. 52. Sur la découverte de la gravitation universelle faite par le grand Newton. 53. Continuation sur l'attraction mutuelle des corps célestes. 54. Des différens sentimens des philosophes sur la gravitation universelle et en particulier du sentiment des attractionistes. 55-57. Sur la force avec laquelle ous les corps célestes s'attirent mutuellement. 58. Sur le mouvement des corps célestes et sur la méthode de le déterminer par les loix (!) de la gravitation universelle. 59-60. Sur le système du monde. 61. Sur les petites irrégularités qu'on observe dans les mouvemens des planètes et qui sont causées par leur attraction mutuelle. 62. Description du flux et reflux de la mer. 63. Des différens sentimens des philosophes sur le flux et reflux de la mer. 64-67. Explication détaillée de ce phénomène du flux et reflux de la mer par la force attractive de la lune. 68. Exposition plus détaillée de la dispute des philosophes sur la cause de la gravitation universelle. 69. Sur la nature et l'essence des corps; ou bien sur l'étendue, la mobilité et l'impénétrabilité des corps. 70. Sur l'impénétrabilité des corps en particulier. 71. Du mouvement et du repos vrai et apparent. 72. Du mouvement uniforme et des mouvemens accélérés et retardés. 73. De la principale loi du mouvement et du repos: et sur les disputes des philosophes à cet égard. 74. Sur l'inertie des corps et sur les forces. 75. Sur les changemens qui peuvent arriver dans l'état des corps. 76. Sur le système wolffien des monades. 77. Sur l'origine et la nature des forces. 78. Sur le mème sujet et sur le principe de la moindre action. 79. Sur la question, s'il y a encore d'autres espèces de forces? -- According to the records, it was presented to the St. Petersburg Academy on May 21, 1767.
Reviewed in *Recueil pour les astronomes* 3, 1776, p. 330.
Continued in E344 and 1772 (E417).

E343² Lettres à une princesse d'Allemagne sur divers sujets de physique & de philosophie. Tome premier. A Mietau et Leipzic chez Steidel et compagnie. 1770.

Kgl. Library in Berlin.
Example Used: Polytechn. Lib. in Zurich.
8^0, VIII + 336 pages + 1 diagram. There are examples that have the statement "chez Hinz et compagnie 1774 (!)."
Continued in E344² and 1772 (E417²).

E343[3] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Tome premier. Berne chez la société typographique. M.DCC.LXX.V.

University Lib. in Berlin.
Example used: University Lib. in Upsala.
8^0, VIII + 309 pages + 4 diagrams. There are examples that have "Londres" listed as the place of publication instead of "Berne."
Continued in E344[3] and 1772 (E417[3]).

E343[4] Lettres de M. Euler à une princesse d'Allemagne, sur différentes questions de physique et de philosophie. Nouvelle édition, avec des additions, par MM. le marquis de Condorcet et de la Croix. Tome premier. A Paris chez Royez, libraire, quai des Augustins, à la descente du Pont-neuf. M.DCC.LXXXVII.

University Lib. in Halle.
Example Used: Polytechn. Lib. in Zurich.
8^0, XLIV + 318 pages + 4 diagrams.
Continued in E344[4] and 1772 (E417[4]).

E343[5] Lettres à une princesse d'Allemagne, sur divers sujets de physique et de philosophie, par L. Euler. Nouvelle édition, conforme à l'édition originale de l'académie des sciences de S[t]-Pétersbourg, revue et augmentée de diverses notes, par J.-B. Labey, et précédée de l'éloge d'Euler par de Condorcet. Tome premier. Paris, Veuve Courcier 1812.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, LVIII + 530 + (1) pages + 3 diagrams. With a portrait.
Continued in E344[5].

E343[6] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie; enrichies d'un fac-simile, et de plusieurs lettres inédites; avec une préface et des notes par M. Laurentie. Paris, bureau de la bibliothèque choisie 1829.

Example Used: G. E.
8^0, 325 pages. Contains only 47 letters; the ones mentioned in the title as "lettres inèdites" are not included.

E343[7] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler.

Œvres complètes d'Euler 1, 1839, p. 1-347. Letters 1-137.
Continued in E344[7].

E343[8] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie précédées de l'éloge d'Euler par Condorcet et annotées par M. A. A. Cournot. Tome premier. Paris, Hachette 1842.

University Lib. in Berlin.
Example Used: G. E.

8^0, LI + 472 pages + 2 diagrams.
Continued in E344[8].

E343[9] Euler. Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie, précédées de l'éloge d'Euler par Condorcet. Nouvelle édition, avec une introduction et des notes, par Emile Saisset. Paris, Charpentier 1843.

Example Used: G. E.
8^0, (3) + XIX + (1) + 612 pages. Contains 68 + 64 + 102 = 234 letters.

E343[10] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler. Précédées de l'éloge d'Euler par Condorcet. Nouvelle édition avec une introduction et des notes par E. Saisset. Vol. I. Paris, Charpentier 1859.

According to J. Ch. Brunet.
8^0. Continued in E344[10].

E343[11] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Par L. Euler. Vol. I. Nouvelle édition. Paris 1862.

According to an antique book catalog.
8^0. With a portrait.
Continued in E344[11].

E343[12] Lettres d'Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie accompagnées de l'éloge d'Euler par Condorcet et de 215 figures gravées sur bois intercalées dans le texte Avec une introduction et des notes par Émile Saisset Tome premier Paris, Charpentier 1866.

Example Used: G. E.
8^0, (3) + XXVIII + 404 pages. Contains 68 + 48 letters.
Continued in E344[12].

E343A Translated into Russian: Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣкоторой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть перьвая. Въ Санктпетербургѣ при императорской академїи наукъ 1768 года.

8^0, 14 + 319 pages + 1 diagram. According to Bobynin's Russian physicist/mathematician bibliography 2:1 (1889), p. 27-28. Translated by Stepan Rumowskij, as indicated in the title.
Continued in E344A and 1772 (E417A).

E343A[2] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя

Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть первая. Изданіе второе. Въ Санктпетербургѣ при императорской академїи наукъ 1785 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:2 (1890), p. 99. Continued in E344A[2] and 1772 (E417A[2]).

E343A[3] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть первая. Въ Санктпетербургѣ при императорской академїи наукъ 1790 года.

8^0, 14 + 319 pages + 1 diagram. According to Bobynin's Russian physicist/mathematician bibliography 2:3 (1892), p. 95.
Continued in E344A[3] and 1772 (E417A[3]).

E343A[4] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ члепомъ, астрономомъ и профессоромъ. Часть первая. Въ Санктпетербургѣ при императорской академїи наукъ 1796 г.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:4 (1893), p. 70. Continued in E344A[4] and 1772 (E417A[4]).

E343B Translated into German: Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Erster Theil. Leipzig, bey Johann Friedrich Junius, 1769.

University Lib. in Berlin.
Example Used: G. E.
8^0, (8) + 268 pages + 1 diagram.
Continued in E344B and 1772 (E417B).

E343B[2] Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Erster Theil. Zweyte Auflage. Leipzig, bey Johann Friedrich Junius 1773.

Kgl. Library in Berlin.
Example Used: City Lib. in Bern.
8^0, (8) + 268 pages + 1 diagram.
Continued in E344B[2] and 1772 (E417B[2]).

E343B[3] Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Erster Theil. Dritte Auflage. Leipzig, bey Johann Friedrich Junius, 1784.

Kgl. Library in Berlin.
Example Used: Kantonsbibl. in Zurich.

8^0, (8) + 268 pages + 1 diagram.
Continued in E344B[3] and 1772 (E417B[3]).

E343B[4] Leonhard Eulers Briefe über verschiedene Gegenstände aus der Naturlehre. Nach der Ausgabe der Herren Condorcet und de la Croix aufs neue aus dem Französischen übersetzt und mit Anmerkungen, Zusätzen und neuen Briefen vermehrt von Friedrich Kries, Lehrer an dem Gothaischen Gymnasium. Erster Band. Mit vier Kupfertafeln. Leipzig, im Verlage der Dyckschen Buchhandlung. 1792.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, XXVIII + 547 + (1) pages + 4 diagrams.
Reviewed in *Neue allg. duetsche Bibl*. 3, 1793, p. 558-559. *Götting gel. Anz.* 1793, p. 110-11 (Kästner). *Goth. gel. Zeit*. 1792: II, p. 587. *Neue Leipz. gel. Zeit*. 1792: III, p. 495; 1793: III, p. 565; 1794: III, p. 451.
Continued in E344B[4] and 1772 (E417B[4]).

E343B[5] Physikalische Briefe für Gebildete aller Stände, von Leonhard Euler und Johann Müller. Stuttgart, J. B. Müllers Verlagshandlung 1848.

University Lib. in Berlin.
Example Used: Polytechn. Lib. in Zurich.
8^0, (2) + XIV + XXVIII + 204 pages; (2) + 258 pages; (4) + 170 pages. The three parts also have separate title pages with the years 1847, 1847, and 1848 listed (also see 1772 E417B[5]). Most of the second part of the original (letters 80-132) is left out by the reviser. The second part of this version corresponds to the end of the second part as well as the third part of the original, and the remainder was written by the reviser.

E343B[6] Physikalische Briefe für Gebildete aller Stände von Leonhard Euler und Joh. Müller. Neue vermehrte und verbesserte Auflage in vier Theilen, mit vielen Holzschnitten. Stuttgart, J. B. Müllers Verlagshandlung 1853.

University Lib. in Marburg.
Example Used: G. E.
8^0, XIV + 204 pages; (2) + 258 pages; (2) + 170 pages; (5) + 66 pages.
Also see 1772 (E417B[6]).

E343C Translated into Dutch: Brieven over de voornaamste Onderwerpen der Natuurkunde en Wysbegeerte door den Hoogleeraar L. Euler, Lid van de keizerlyke en koninglyke Academien te Petersburg, Berlin en Parys &c. &c. Volgens de laatsche Hoogduitsche en Fransche uitgave vertaald. Eerste Deel. Te Leyden, By Murray en Pluygers MDCCLXXXV.

Kgl. Library in Amsterdam.
Report by G. Valentin.
8^0, X + 431 pages + 3 diagrams.
Continued in E344C and 1772 (E417C).

E343C² Brieven over de voornaamste Onderwerpen der Natuurkunde en Wysbegeerte door den Hoogleeraar L. Euler, Lid van de keizerlyke en koninglyke Academien te Petersburg, Berlin en Parys &c. &c. Volgens de laatsche Hoogduitsche en Fransche uitgabe vertaald. Eerste Deel. Tweede Druk. Te Leyden, by Pieter Pluyer MDCCLXXXV (!).

Kgl. Library in Amsterdam.
Report by G. Valentin.
8^0, X + 431 pages + 3 diagrams.

E343D Translated into Swedish: Leonhard Eulers bref till en tysk prinsessa i åtskilliga physiska och philosophiska ämnun. Förrste(!) delen. Öfversättning. Stockholm, tryckt i kongl. tryckeriet, MDCCLXXXVI.

Polytechn. Lib. in Zurich.
Example used: Kgl. Library in Stockholm.
8^0, (15) + XXXII + 316 + (1) + (1) pages + 5 diagrams. With Euler's portrait on the title page.
Translated by G. H. de Rogier.
Continued in E344D and 1772 (E417D).

E343D² Leonhard Eulers bref till en tysk prinsessa i åtskilliga physiska och philosophiska ämnun. Förrste(!) delen. Öfversättning. Andra upplagan. Stockholm, tryckt hos Anders Zetterberg, MDCCXCIII.

Kgl. Library in Stockholm.
Example Used: G. E.
8^0, (4) + XXXII + 316 + (4) pages + 5 diagrams.
Continued in E344D² and 1772 (E417D²).

E343E Translated into Italian: Lettere ad una principessa d'Alemagna sopra diversi soggetti di fisica e di filosofia scritte da Mr. Eulero e tradotte dal franzese con aggiunte di note dall'abate Oronzo Carnevale. Tomo primo. In Napoli. Presso i fratelli Terres con licenza de' superiori. MDCCLXXXVII.

University Lib. in Naples.
Report by F. Amodeo.
8^0, (4) + 384 pages + 4 diagrams.
Continued in E344E and 1772 (E417E).

E343F Translated into Danish: Breve til en Prindsesse i Tydskland over adskillige Gienstande af Physiken og Philosophien skrevne i det franske Sprog af Hr. Leonhard Euler, og oversatte efter den 1770 udkomne Original af C. C. Pflueg. Første Deel. Med 11 Kobbere. Kiøbenhavn 1792. Trykt udi det kongelige Waysenhuses Bogtrykkerie, af Carl Friederich Schubart.

Kgl. Library in Copenhagen.
Report by G. Valentin.
8^0, XVI + (8) + 302 pages + 11 diagrams.
Continued in E344F and 1772 (E417F).

E343G Translated into English: Letters of Euler to a German princess, on different subjects in physics and philosophy. Translated from the French by Henry Hunter with original notes, and a glossary of foreign and scientific terms. Vol. I. London, Murray 1795.

British Museum.
Report by L. C. Karpinski.
8^0. Continued in E344G.

E343G^2 Letters of Euler on different subjects in physics and philosophy addressed to a German princess. Translated from the French by Henry Hunter with original notes and a glossary of foreign and scientific terms. Vol. I. Second edition. London, Murray 1802.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0. Continued in E344G^2.

E343G^3 Letters of Euler on different subjects in natural philosophy. With notes, and a life of Euler, by David Brewster. Vol. I. Third edition. Edinburgh 1823.

Peabody Institute Lib. in Baltimore.
Report by L. C. Karpinski.
8^0. Continued in E344G^3.

E343G^4 Letters of Euler on different subjects in natural philosophy addressed to a German princess. With notes, and a life of Euler, by David Brewster. Containing a glossary of scientific terms with additional notes, by John Griscom. Vol. I. New York, Harper 1833.

Columbia University Lib. in New York.
Report by L. C. Karpinski.
8^0, III + 386 pages + 1 diagram. "Harpers Family Library" Number 55. This is the Hunter translation.
Continued in E344G^4.

E343G^5 Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. I. New York, Harper 1839.

Atheneum Lib. in Boston.
Report by L. C. Karpinski.
8^0. Complete title the same as E343G^4. "Harpers Family Library" Number 55.
Continued in E344G^5.

E343G^6 Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. I. New York, Harper 1840.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0, 386 pages. Complete title the same as E343G^4. "Harpers Family Library" Number 55.
Continued in E344G^6.

E343G[7] Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. I. New York, Harper 1842.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0, 386 pages + 1 diagram. Complete title the same as E343G[4]. "Harpers Family Library" Number 60.
Continued in E344G[7].

E343G[8] Letters of Euler on different subjects in physics and philosophy addressed to a German princess… Vol. I. New York 1846.

British Museum.
According to G. Valentin.
8^0. Complete title the same as E343G[4].[7]
Continued in E344G[8].

E343G[9] Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. I. New York 1858.

According to an antique book catalog.
8^0. Complete title the same as E343G[4].
Continued in E344G[9].

E343H Translated into Spanish: Cartas a una princesa de Alemania sobre varias materias de fisicas y de filosofía traducidas con notas y adiciones por Juan Lopez de Peñelver. Tomo I. Madrid, 1798

Kgl. Library in Berlin.
Report by G. Valentin.
8^0, LVIII + 271 pages + 2 diagrams. I do not know whether parts II and II ever appeared.

E344 Lettres à une princesse d'Allemagne sur divers sujets de physique & de philosophie Tome second. A Saint Pétersbourg de l'imprimerie de l'académie impériale des sciences MDCCLXVIII.

University Lib. in Gottingen.
Example Used: Lib. of the Stockholm Sci. Acad.
8^0, XIV + 340 pages + 3 diagrams. Anonymous (same as E343). The second part contains letters 80-154 (November 29, 1760 – August 15, 1761). The letters treat the following subjects: 80. Sur la nature des esprits. 81. Sur la liaison mutuelle entre l'âme et le corps. 82. Sur les différens sistèmes pour expliquer l'union entre l'âme et le corps. 83. Examen du sistème de l'harmonie préétablie, et objection contre ce sistème. 84. Autre objection contre ce sistème. 85-86. Sur la liberté des esprits, et réponse aux objections qu'on fait comunément contre la liberté. 87. Sur l'influence de la liberté des esprits dans les événemens du monde. 88. Sur les événemens naturels, surnaturels et moraux. 89. Sur la question du meilleur monde et sur l'origine des maux et des péchés. 90. Connexion des considérations précédentes avec la religion, et réponse aux objections que presque tous les sistèmes philosophiques fournissent contre la prière. 91. Sur la

[7] I think this is a mistake, since the part of the title he copied is not the same as that of E343G[4]. –G.P.

liberté des êtres intelligens et qu'elle n'est pas contraire aux dogmes de la réligion(!) chrétienne. 92. Eclaircissemens ultérieurs sur la nature des esprits. 93. Continuation sur le même sujet et réflexions sur l'état des âmes après la mort. 94. Considérations plus détaillées sur l'action de l'âme sur les corps et réciproquement du corps sur l'âme. 95. Sur les facultés de l'âme sur le jugement. 96. Sur la conviction de l'existence de ce que nous appercevons par les sens. Des idéalistes, égoïstes et matérialistes. 97. Réfutation du sentiment des idéalistes. 98. De la faculté de sentir. Sur la réminiscence, la mémoire et l'attention. Des idées simples et composées. 99. Sur la division des idées en obscures et claires, confuses et distinctes. Sur la distraction. 100. Sur l'abstraction et les notions. Des notions générales et des individus. Des genres et des espèces. 101. Sur les langages, leur essence, avantage et nécessité, tant pour se communiquer mutuellement les pensées que pour cultiver nos propres connoissances. 102. Sur les perfections d'une langue. Sur les jugemens et sur la nature des propositions, qui sont ou affirmatives, ou négatives; ou universelles ou particulières. 103. Des sillogismes et sur leurs différentes formes, si la première proposition est universelle. 104. Sur les différentes formes de sillogismes, dont la première proposition est particulière. 105. Analise de quelques sillogismes. 106. Des différentes figures et des modes de sillogismes. 107. Observations et réflexions sur les différens modes de sillogismes. 108. Sur les propositions hypothétiques et sur les sillogismes qui y sont fondés. 109. De l'impression des sensations sur l'âme. 110. Considérations plus détaillées sur l'origine et la permission du mal et des péchés dans le monde. 111. Sur les maux moraux et physiques. 112. Réponse aux plaintes des hommes contre les maux physiques dans ce monde. 113. Sur la vraie destination des hommes et sur l'utilité et la nécessité des adversités dans ce monde. 114. Sur la vraie félicité, et sur la conversion des pécheurs. Réponse aux objections qu'on pourroit faire sur cette matière. 115. Sur le véritable fondement de toutes nos connoissances. Sur les trois sources des vérités et sur les trois classes de nos connoissances qui en naissent. 116. Sur le même sujet et en particulier sur les égaremens dans la connoissance de la vérité. 117. Sur la première classe de nos connoissances et en particulier sur la conviction qu'il existe réellement hors de nous des choses, qui répondent aux idées que les sens représentent. Objections des pyrrhoniens contre cette conviction et réponse à cette objection. 118. Autre objection des pyrrhoniens contre la certitude des vérités apperçues par les sens. Réponse à cette objection et sur les précautions qu'on doit observer pour être assuré des vérités des sens. 119. Sur la certitude démonstrative, physique et en particulier sur la certitude morale. 120. Remarques sur ce que les sens contribuent à augmenter nos connoissances, et sur les précautions qu'on doit observer pour être assuré des vérités historiques. 121. Sur la question, si l'essence des corps nous est connuë ou non? 122. Sur la vrai notion de l'étendue. 123. Sur la divisibilité à l'infini de l'étendu. 124. Si cette divisibilité à l'infini a lieu dans les corps actuellement existans. 125. De la fameuse dispute sur les monades. 126. Réflexions ultérieures sur la divisibilité à l'infini des corps et sur les monades. 127. Refutation et réponse aux objections des monadistes contre la divisibilité à l'infini des corps. 128. Sur le principe de la raison suffisante, qui est le plus fort appui des monadistes. 129. Autre argument des partisans des monades tiré du principe de la raison suffisante; et sur les absurdités qui en découlent nécessairement. 130-131. Réflexions plus détaillés sur le sistème des monades. 132. Fin des réflexions sur le sistème des monades. 133. Eclaircissemens sur la nature des couleurs. 134-135. Réflexions sur l'analogie entre les couleurs et les sons. 136. Sur la question, de quelle manière les corps opaques nous deviennet visibles. 137. Sur les merveilles de la voix humaine. 138. Précis des principaux phénomènes de l'électricité. 139. Du véritable principe de la nature sur lequel tous les phénomènes de l'électricité sont fondés. 140-141. Continuation, et en particulier sur la différente nature des corps par rapport à l'électricité. 142-143. De l'électricité positive et de l'électricité négative:

Explication du phénomène de l'attraction. 144. Sur l'atmosphère électrique. 145. Sur la communication de l'électricité à une barre de fer, par le moien d'un globe de verre. 146. Sur l'électrisation des hommes et des animaux. 147. Du caractère distinctif des deux espèces de l'électricité, positive et négative. 148. Comment le même globe de verre peut fournir l'une et l'autre espèce d'électricité à la fois? 149. Sur l'expérience de Leyde. 150. Réflexions sur la cause et la nature de l'électricité, et sur les autres moiens propres à produire l'électricité. 151. Sur la nature du tonnere: Explication des anciens philosophes et de Descartes; et sur la ressemblance entre les phénomènes du tonnere et ceux de l'électricité. 152-153. Explication des phénomènes de l'éclair et du tonnere. 154. Sur la possibilité de prévenir et de détourner les funestes effets de la foudre.
Reviewed in *Recueil pour les astronomes* 3, 1776, p. 330.
Also see E343 and 1772 (E417).

E344[2] Lettres à une princesse d'Allemagne sur divers sujets de physique & de philosophie. Tome second. A Mietau et Leipzic chez Steidel et compagnie. 1770.

Kgl. Library in Berlin.
Example Used: Polytechn. Lib. in Zurich.
8^0, VIII + 352 pages + 3 diagrams. There are examples that have the statement "chez Hinz et compagnie 1774 (!)."
Also see E343[2] and 1772 (E417[2]).

E344[3] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Tome second. Berne chez la société typographique. M.DCC.LXX.V.

University Lib. in Berlin.
Example used: University Lib. in Upsala.
8^0, VIII + 315 pages + 4 diagrams. There may be examples with "Londres" listed as the place of publication.
Also see E343[3] and 1772 (E417[3]).

E344[4] Lettres de M. Euler à une princesse d'Allemagne, sur différentes questions de physique et de philosophie. Nouvelle édition. Avec des additions, par MM. le marquis de Condorcet et de la Croix. Tome second. A Paris, chez Royez, libraire, quai des Augustins, à la descente du Pont-Neuf. M.DC.LXXXVIII.[8]

University Lib. in Halle.
Example Used: Polytechn. Lib. in Zurich.
8^0, (4) + 348 pages + 4 diagrams.
Also see E343[4] and 1772 (E417[4]).

E344[5] Lettres à une princesse d'Allemagne, sur divers sujets de physique et de philosophie, par L. Euler. Nouvelle édition, conforme à l'édition originale de l'académie des sciences de S[t]-Pétersbourg, revue et augmentée de diverses notes, par M. J.-B. Labey, et précédée de l'éloge d'Euler par de Condorcet. Tome second. Paris, Veuve Courcier 1812.

[8] This is a mistake, although whose mistake I can't say. I think it should read M. DCC. LXXXVIII. –G. P.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (2) + 598 + (1) pages + 6 diagrams.
Also see E343[5].

E344[6] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie; enrichies d'un fac-simile, et de plusieurs lettres inédites; avec une préface et des notes par M. Laurentie. Paris, bureau de la bibliothèque choisie 1829.

See E343[6].

E344[7] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler.

Œvres complètes d'Euler 2, 1839, p. 5-261. Letters 138-323.
Also see E343[7].

E344[8] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie précédées de l'éloge d'Euler par Condorcet et annotées par M. A. A. Cournot. Tome second. Paris, Hachette 1842.

Example Used: G. E.
8^0, (3) + 524 pages + 4 diagrams.
Also see E343[8].

E344[9] Euler. Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie, précédées de l'éloge d'Euler par Condorcet. Nouvelle édition, avec une introduction et des notes, par Emile Saisset. Paris, Charpentier 1843.

See E343[9]

E344[10] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler. Précédées de l'éloge d'Euler par Condorcet. Nouvelle édition avec une introduction et des notes par E. Saisset. Vol. II. Paris, Charpentier 1859.

According to J. Ch. Brunet.
8^0. Also see E343[10].

E344[11] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Par L. Euler. Nouvelle édition. Vol. II. Paris 1862.

According to an antique book catalog.
8^0. Also see E343[11].

E344[12] Lettres d'Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie accompagnées de l'éloge d'Euler par Condorcet et de 215 figures gravées sur bois intercalées dans le texte Avec une introduction et des notes par Émile Saisset Tome second Paris, Charpentier 1866.

Example Used: G. E.
8^0, (3) + 412 pages. Contains 16 + 102 letters.
Also see E343[12].

E344A Translated into Russian: Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣкоторой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ. Часть вторая. Въ Санктпетербургѣ, при императорской академїи наукъ 1772 года.

8^0, 12 + 339 pages + 3 diagrams. According to Bobynin's Russian physicist/mathematician bibliography 2:1, (1889), p. 62. Translated by Stepan Rumowskij, as indicated in the title.
Also see E343A and 1772 (E417A).

E344A[2] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть вторая. Изданіе второе. Въ Санктпетербургѣ, при императорской академїи наукъ 1785 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:2, (1890), p.99.
Also see E343A[2] and 1772 (E417A[2]).

E344A[3] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть вторая. Въ Санктпетербургѣ, при императорской академїи наукъ 1791 года.

8^0, 12 + 339 pages + 3 tables. According to Bobynin's Russian physicist/mathematician bibliography 2:3 (1892), p. 121.
Also see E343A[3] and 1772 (E417A[3]).

E344A[4] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть вторая. Изданіе четвертое. Въ Санктпетербургѣ, при императорской академїи наукъ 1796 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:4 (1893), p. 70.
Also see E343A[4] and 1772 (E417A[4]).

E344B Translated into German: Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Zweyter Theil. Leipzig, bey Johann Friedrich Junius, 1769.

University Lib. in Berlin.
Example Used: G. E.
8^0, (8) + 300 pages + 3 diagrams. This second part is translated by J. J. Engel.
Also see E343B and 1772 (E417B).

E344B^2 Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Zweyter Theil. Zweyte Auflage. Leipzig, bey Johann Friedrich Junius 1773.

Kgl. Library in Berlin.
Example Used: City Lib. in Bern.
8^0, (8) + 300 pages + 3 diagrams.
Also see E343B^2 and 1772 (E417B^2).

E344B^3 Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Zweyter Theil. Dritte Auflage. Leipzig, bey Johann Friedrich Junius, 1784.

Kgl. Library in Berlin.
Example Used: Kantonsbibl. in Zurich.
8^0, (8) + 300 pages + 3 diagrams.
Also see E343B^3 and 1772 (E417B^3).

E344B^4 Leonhard Eulers Briefe über verschiedene Gegenstände aus der Naturlehre. Nach der Ausgabe der Herren Condorcet und de la Croix aufs neue aus dem Französischen übersetzt und mit Anmerkungen, Zusätzen und neuen Briefen vermehrt von Friedrich Kries, Lehrer an dem Gothaischen Gymnasium. Zweyter Band. Mit zwey Kupfertafeln. Leipzig, im Verlage der Dyckschen Buchhandlung. 1793.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, VIII + 384 pages + 2 diagrams.
Also see E343B^4 and 1772 (E417B^4).

Also see the note to E343B^5.

E344C Translated into Dutch: Brieven over de voornaamste Onderwerpen der Natuurkunde en Wysbegeerte door den Hoogleeraar L. Euler, Lid van de keizerlyke en koninglyke Academien te Petersburg, Berlin en Parys &c. &c. Volgens de laatsche Hoogduitsche en Frensche uitgave vertaald. Tweede Deel. Te Leyden, by Pieter Pluygers, MDCCLXXXV.

Kgl. Library in Amsterdam.
Report by G. Valentin.
8^0, XII + 445 pages + 3 diagrams.

Also see E343C and 1772 (E417C).

E344D Translated into Swedish: Leonhard Eulers bref till en tysk prinsessa, i åtskilliga physiska och philosophiska ämnen. Andre delen. Öfversättning. Stockholm, tryckt i kongl. tryckeriet MDCCLXXXVII.

Polytechn. Lib. in Zurich.
Example Used: Kgl. Library in Stockholm..
8^0, (12) + 360 pages + 3 diagrams.
Also see E343D and 1772 (E417D).

E344D² Leonhard Eulers bref till en tysk prinsessa, i åtskilliga physiska och philosophiska ämnun. Andre delen. Öfversättning. Andra upplagan. Stockholm, tryckt hos Anders Zetterberg, MDCCXCV.

Kgl. Library in Stockholm.
Example Used: G. E.
8^0, (12) + 360 pages + 3 diagrams.
Also see E343D² and 1772 (E417D²).

E344E Translated into Italian: Lettere ad una principessa d'Alemagna sopra diversi soggetti di fisica e di filosofia scritte da Mr. Eulero e tradotte dal franzese con aggiunte di note dall'abate Oronzo Carnevale. Tomo secondo. In Napoli. Presso i fratelli Terres con licenza de' superiori. MDCCLXXXVII.

University Lib. in Naples.
Report by F. Amodeo.
8^0, 352 pages + 4 diagrams.
Also see E343E and 1772 (E417E).

E344F Translated into Danish: Breve til en Prindsesse i Tydskland over adskillige Gienstande af Physiken og Philosophien, oversat efter den franske Original af C. C. Pflueg. Anden Deel. Med 8 Kobbere. Kiøbenhavn 1792. Trykt udi det kongelige Waysenhuses Bogtrykkerie, af Carl Friederich Schubert.

Kgl. Library in Copenhagen.
Report by G. Valentin.
8^0, VIII + 328 pages + 8 diagrams.
Also see E343F and 1772 (E417F).

E344G Translated into English: Letters of Euler to a German Princess, on different subjects in physics and philosophy. Translated from the French by Henry Hunter with original notes and a glossary of foreign and scientific terms. Vol. II. London, Murray 1795.

British Museum.
Report by L. C. Karpinski.
8^0. Also see E343G.

E344G[2] Letters of L. Euler on different subjects in physics and philosophy addressed to a German princess, translated from the French by H. Hunter with original notes and a glossary of foreign scientific terms. Vol. II. Second edition. London 1802.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0. Also see E343G[2].

E344G[3] Letters of Euler on different subjects in natural philosophy. With notes, and a life of Euler, by David Brewster. Vol. II. Third edition. Edinburgh 1823.

Peabody Institute Lib. in Baltimore.
Report by L. C. Karpinski.
8^0. Also see E343G[3].

E344G[4] Letters of Euler on different subjects in natural philosophy, addressed to a German princess. With notes, and a life of Euler, by David Brewster. Containing a glossary of scientific terms with additional notes, by John Griscom. Vol. II. New York, Harper 1833.

Columbia University Lib. in New York.
Report by L. C. Karpinski.
8^0. "Harper's Family Library" Number 56.
Also see E343G[4].

E344G[5] Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. II. New York, Harper 1839.

Atheneum Lib. in Boston.
Report by L. C. Karpinski.
8^0. Complete title the same as E344G[4]. "Harper's Family Library" Number 56.
Also see E343G[5].

E344G[6] Letters of Euler on different subjects in natural philosophy. Addressed to a German princess… Vol. II. New York, Harper 1840.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0. 436 pages. Complete title the same as E344G[4]. "Harper's Family Library" Number 56.
Also see E343G[6].

E344G[7] Letters of Euler on different subjects in natural philosophy, addressed to a German princess… Vol. II. New York, Harper 1842.

Library of Congress in Washington.
Report by L. C. Karpinski.
8^0. 436 pages. Complete title the same as E344G[4]. "Harper's Family Library" Number 61.
Also see E343G[7].

E344G[8] Letters of Euler on different subjects in physics and philosophy addressed to a German princess… Vol. II. New York 1846.

British Museum.
According to G. Valentin.
8^0. Complete title the same as E344G[4]. Also see E343G[8].

E344G[9] Letters of Euler on different subjects in natural philosophy addressed to a German princess… Vol. II. New York 1858.

According to an antique book catalog.
8^0. Also see E343G[9].

E345 Integratio aequationis $\frac{dx}{\sqrt{(A+Bx+Cx^2+Dx^3+Ex^4)}} = \frac{dy}{\sqrt{(A+By+Cy^2+Dy^3+Ey^4)}}$.

Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 3-16. According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-6.
Reviewed in *Nova acta erud*. 1769, p. 529-530.

E346 De arcubus curvarum aeque amplis earumque comparation. Auctore L. Eulero.

About the analytical expression for arcs of curves, which are shaped so that the angles between the normals at the endpoints are the same size for all arcs.
Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 17-41 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.
Abstract: *A. a. O., Summarium dissertationum*, p. 6-8.
Reviewed in *Nova acta erud*. 1769, p. 530-532.

E347 Evolutio generalior formularum comparationi curvarum inservientium. Auctore L. Eulero.

About properties of the elliptic integral.
Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 42-86 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.
Abstract: *A. a. O., Summarium dissertationum*, p. 9-10.
Reviewed in *Nova acta erud*. 1769, p. 532-533.

E348 Methodus facilis motus corporum coelestium utcunque perturbatos ad rationem calculi astronomici revocandi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 129-165 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.

Abstract: *A. a. O., Summarium dissertationum*, p. 16-18.
Reviewed in *Nova acta erud*. 1769, p. 536-538. *Recueil por les astronomes* 1, 1771, p. 84-85.

E349 Disquitio de vera lege refrationis radiorum diversicolorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 166-194 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on November 25, 1762; according to the records, it was presented to the St. Petersburg Academy on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 18-20.
Reviewed in *Nova acta erud*. 1769, p. 538-540.

E350 De novo microscopiorum genere ex sex lentibus compositio (!). Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 195-223 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on May 23, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 21- 24; the title is corrected here to "composito."
Reviewed in *Nova acta erud*. 1769, p. 540-542.

E351 De telescopiis quatuor lentibus instructis eorumque perfectione. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 12, (1766/7), 1768, p. 224-271 (pages 268 and 270 are white) + 3 figures. According to C. G. J. Jacobi, a treatise with approximately the same title was read to the Berlin Academy on November 12, 1761, and another (a continuation?) with exactly the title listed above was read on May 5, 1763; according to the records, it was presented to the St. Petersburg Academy on May 17, 1762 and December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-24 (see above).
Reviewed in *Nova acta erud*. 1769, p. 540-542 (see above).

E352 Remarques sur un beau rapport entre les séries des puissances tant directes que réciproques. Par M. L. Euler.

About the functional equation of the so-called Riemann Zeta-function.
Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 83-106. According to the note on p. 83, it was read in 1749.

E353 Recherches sur la confusion des verres dioptriques causée par leur ouverture. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 107-146 + 8 figures. The presentation date is unknown.

E354 Recherches sur les moyens de diminuer ou de réduire même à rien la confusion causée par l'ouverture des verres. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 147-180. The presentation date is unknown.

E355 Nouvelle manière de perfectionner les verres objectifs des lunettes. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 181-190 + 8 figures. The presentation date is unknown.

E356 Détermination du champ apparent que découvrent, tant les télescopes que les microscopes. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 191-200 + 1 diagram. The presentation date is unknown.

E357 Règles générales pour la construction des télescopes et des microscopes. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 201-211. According to the note on p. 201, it was read in 1756; probably the treatise "Règles générales pour la construction des télescopes et des microscopes de quelque nombre de verres qu'ils soient composés" which was presented to the Berlin Academy on July 1, 1756, according to C. G. J. Jacobi.

E358 Sur la perfection des lunettes astronomiques, qui représentent les objets renversés. Par M. Euler.

Mémoires de l'académie des sciences de Berlin [17], (1761), 1768, p. 212-230 + 1 figure. According to the note on p. 212, it was read in 1758; according to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 21, 1758.

E359 Construction des objectifs composés de deux différentes sortes de verre qui ne produisent aucune confusion, ni par leur ouverture, ni par la différente réfrangibilité des rayons, avec la manière la plus avantageuse d'en faire des lunettes. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [22], (1766), 1768, p. 119-170 + 8 figures. According to the note on p. 119, it was read in 1764; according to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on May 10 and 24, 1764.

E360 Construction des objectifs composés, propre à détruire toute la confusion dans les lunettes. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [22], (1766), 1768, p. 171-201 + 1 figure. According to the note on p. 171, it was read on February 6, 1766.

E361 Réfléxions (!) sur la manière d'examiner la réfraction du verre par le moyen des prismes. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [22], (1766), 1768, p. 202-212 + 1 diagram. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on January 17, 1765.

E362 Corrections nécessaires pour la théorie de la déclinaison magnétique, proposée dans le XIII volume des Mémoires. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [22], (1766), 1768, p. 213-264 + 1 table + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 7, 1765.

E363 Précis d'une théorie générale de la dioptrique. Par M. Euler.

Memoures de l'académie des sciences de Paris, 1765, printed 1768, p. 555-575 + 1 diagram. The presentation date is unknown.
Abstract: *A. a. O., Histoire*, p. 124-128.

E364 Lettre écrite à l'académie royale des sciences & belles lettres de Berlin par Mr. L. Euler, membre de cette académie & de cette de St. Pétersbourg.

About "Dioptrica" and "Theoria motuum lunae," the two works of Euler's that are under attack.
Gazette littéraire de Berlin 5, 1768, p. 385-386. The letter is dated October 21/November 1, 1768. The same letter was also sent to the Paris Academy of Science (see the letter from d'Alembert to Lagrange on October 19, 1768; *Œuvres de Lagrange* 13, Paris 1882, p. 126); also see 1908 (E865).

E364A Translated into German: Sendschreiben an die Königlich Preußische Akademie der Wissenschaften in Berlin.

J. E. Scheibel, *Einleitung zur mathematischen Bücherkentnis* 1: 1, Bresslau 1769, p. 106-110. Reprinted in J.E. Scheibel's *Einleitung zur mathematischen Bücherkentnis* 1, second edition, Bresslau 1781, p. 102-106. [**E364a**].

E365 [Extracts of letters from L. Euler to J. d'Alembert from December 27, 1748, January 3, 1750, July 26, 1763 and December 20, 1763.]

J. d'Alembert, *Opuscules mathématiques* 4, Paris 1768, p. 342-343, 146, 162.

Also see 1762 (E267a), 1770 (E387A: Russian translation of "Algebra").

E366 Institutionum calculi integralis volumen secundum in quo methodus inveniendi functiones unius variabilis ex data ralatione differentialium secundi altiorisve gradus pertractatur. Auctore Leonhardo Euler acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin. et Londin. Petropli impensis academiae imperialis scientiarum 1769.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (4) + 526 + 8 pages. The second volume has two "sectiones." The "sectio prima, de resolutione aequationum differentialium secundi gradus, duas tantum variabiles involventium" contains 12 chapters: 1. De integratione formularum differentialium secundi gradus simplicium. 2. De aequationibus differentio-differentialibus, in quibus altera variabilium ipsa deest. 3. De aequationibus differentio-differentialibus homogeneis, et quae ad eam formam reduci possunt. 4. De aequationibus differentio-differentialibus, in quibus altera variabilis unicam habet dimensionum. 5. De integratione aequationum differentialium secundi gradus, in quibus altera variabilis unam dimensionum non superat, per factores. 6. De integratione aliarum aequationum differentio-differentialium per idoneos multiplicatores instituenda. 7. De resolutione aequationis $ddy + ax^n ydx^2 = 0$ per series infinitas. 8. De aliarum aequationum differentio-differentialium resolutione per series infinitas. 9. De transformatione aequationum differentio-differentialium hujus formae $Lddy + Mdxdy + Nydx^2 = 0$. 10. De constructione aequationum differentio-differentialium per quadraturas curvarum. 11. De constructione aequationum differentio-differentialium ex earum resolutione per series infinitas petita. 12. De aequationum differentio-differentialium integratione per approximationes. The "sectio secunda, de resolutione aequationum differentialium tertii altiorumque graduum, quae duas tantum variabiles involvunt" contains 5 chapters: 1. De integratione formularum differentialium tertii altiorisve gradus simplicium. 2. De resolutione aequationum hujus formae:

$$Ay + B \cdot \frac{dy}{dx} + C \cdot \frac{ddy}{dx^2} + D \cdot \frac{d^3y}{dx^3} + E \cdot \frac{d^4y}{dx^4} + etc. = 0$$

sumto elemento *dx* constante. 3. De integratione aequationum differentialium hujus formae:

$$X = Ay + \frac{Bdy}{dx} + \frac{Cddy}{dx^2} + \frac{Dd^3y}{dx^3} + etc.$$

4. Applicatio methodi integrandi in capite praecedenti traditae ad exempla. 5. De integratione aequationum differentialium hujus formae:

$$X = Ay + \frac{Bxdy}{dx} + \frac{Cx^2ddy}{dx^2} + \frac{Dx^3d^3y}{dx^3} + \frac{Ex^4d^4y}{dx^4} + etc.$$

Reviewed in *Allg. deutsche Bibl.* 13: 2, 1770, p. 548-550.
Also see 1768 (E342), 1770 (E385), 1794 (E660).

E366² Leonhardi Euleri institutionum calculi integralis volumen secundum, in quo methodus inveniendi functiones unius variabilis ex data ralatione differentialium secundi altiorisve gradus pertractatur. Editio altera et correctior. Petropli impensis academiae imperialis scientiarum 1792.

Kgl. Library in Berlin.
Example used: University Lib. in Gottingen.

4^0, (2) + 434 pages. Also see 1768 (E342[2]), 1770 (E385[2]), 1794 (E660).

E366[3] Leonhardi Euleri institutionum calculi integralis volumen secundum in quo methodus inveniendi functiones unius variabilis ex data ralatione differentialium secundi altiorisve gradus pertractatur. Editio tertia. Petropli, impensis academiae imperialis scientiarum 1827.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (4) + 434 pages. Also see 1768 (E342[3]), 1770 (E385[3]), 1794 (E660[2]).

E366A Translated into German: Leonhard Euler's vollständige Anleitung zur Integralrechnung. Aus dem Lateinischen ins Deutche übersetzt von Joseph Salomon, k. k. Professor. Zweyter Band, welcher die Materie, aus einer gegebenen Relation def Differenzialien des zweyten oder eines höhern Grades Functionen einer einzigen Veränderlichen zu finden, behandelt. Wien, Carl Gerold 1829.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (IV) + 424 pages. Also see 1768 (E342A), 1770 (E385A), 1794 (E660A).

E367 Dioptricae pars prima continens librum primum, de explicatione principiorum, ex quibus constructio tam telescopiorum quam microscopiorum est petenda. Auctore Leonhardo Eulero acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin. et Lond. Petropoli impensis academiae imperialis scientiarum 1769.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, (4) + 337 pages + 3 diagrams. Contains 7 chapters: 1. De diffusione imaginis per unicam lentem repraesentatae. 2. De diffusione imaginis per plures lentes repraesentatae. 3. De lentibus compositis seu multiplicatis. 4. De confusione visionis nec non de magnitudine apparente et claritate. 5. De campo apparente oculique loco maxime idoneo. 6. De confusione a diversa radiorum indole oriunda. 7. De constructione instrumentorum dioptricorum in genere. According to the records, it was presented to the St. Petersburg Academy on October 20, 1768; this work, which is actually assembled out of a large number of earlier treatises, was edited by W. L. Krafft, according to N. Fuss.
Reviewed in *Allg. deutsche Bibl*. 17:1, 1772, p. 259-260. *Götting. gel. Anz*. 1771, p. 1126-1128.
Continued in 1770 (E386) and 1771 (E404).

E367A A version was translated into German: Analytische Dioptrik in zwey Theilen. Der erste enthält die allgemeine Theorie der optischen Werkzeuge: der zweyte die besondere Theorie und vortheilhafteste Einrichtung aller Gattungen von Fernröhren, Spiegelteleskopen und Mikroskopen. Von Georg Simon Klügel Professor der Mathematik zu Helmstädt. Leipzig, bey Johann Friederich Junius. 1778.

Kgl. Library in Berlin.
Example Used: G. E.

4^0, (24) + 303 + (1) pages + 4 diagrams. In his dedication to Euler, Klügel calls the work an extract from the "Dioptrica" with explanations, changes and additions. This version also covers the two other parts of the "Dioptrica."

E368 De curva hypergeometrica hac aequatione expressa $y = 1 \cdot 2 \cdot 3 \cdot \cdots \cdot x$. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 3-66 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-8.
Reviewed in *Nova acta erud.* 1770, p. 289-292.

E369 Quomodo numeri praemagni sint explorandi, utrum sint primi nec ne. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 67-88. According to the records, it was presented to the St. Petersburg Academy on December 19, 1765.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-11.
Reviewed in *Nova acta erud.* 1770, p. 292-294.
Reprinted in *Commentat. arithm*. 1, 1849, p. 379-390 [**E369a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E370 Nova criteria radices aequationum imaginarias discoscendi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 89-119.
According to the records, it was presented to the St. Petersburg Academy on July 6, 1767.
Abstract: *A. a. O., Summarium dissertationum*, p. 11-14.
Reviewed in *Nova acta erud.* 1770, p. 294-296.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E371 Considerationes de theoria motus lunae perficienda et imprimis de ejus variatione. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 120-158 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-17.
Reviewed in *Nova acta erud.* 1770, p. 296-298. *Recuiel pour les astronomes* 1, 1771, p. 87-88.

E372 Annotatio quarundam cautelarum in investigatione inaequalitatum quibus corpora coelestia in motu perturbantur observandarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 159-201 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on December 21, 1763.

Abstract: *A. a. O., Summarium dissertationum*, p. 18-23.
Reviewed in *Nova acta erud*. 1770, p. 298-302. *Recuiel pour les astronomes* 1, 1771, p. 88-89.

E373 Investigatio accuratior phaenomenorum quae in motu Terrae diurno a viribus coelestibus produci possunt. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 202-241 + 1 figure. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on March 24, 1763; according to the records, it was presented to the St. Petersburg Academy on December 21, 1763.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-27.
Reviewed in *Nova acta erud*. 1770, p. 302-304. *Recuiel pour les astronomes* 1, 1771, p. 89-90.

E374 De aequilibrio et motu corporum flexuris elasticis junctorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 259-304 + 2 diagrams. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on December 1, 1763; according to the records, it was presented to the St. Petersburg Academy on August 23, 1764.
Abstract: *A. a. O., Summarium dissertationum*, p. 30-32.
Reviewed in *Nova acta erud*. 1770, p. 307-309.

E375 Sectio prima de statu aequilibrii fluidorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 13, (1768), 1769, p. 305-416 + 4 diagrams. According to the records, it was presented to the St. Petersburg Academy on January 9, 1766.
Abstract: *A. a. O., Summarium dissertationum*, p. 33-38.
Reviewed in *Nova acta erud*. 1770, p. 309-312.

E375A Translated into German: Die Gesetze des Gleichgewichts und der Bewegung flüssiger Körper. Dargestellt von Leonhard Euler. Übersetzt, mit einigen Abänderungen und Zusätzen von H. W. Brandes. Mit 9 Kupfertafeln. Leipzig 1806 bey Siegfried Lebrecht Crusius.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, XXXII + 538 + (2) pages + 9 diagrams. Pages 1-95 ("Die Gesetze des Gleichgewichts flüssiger Körper") contains the translation of treatise E375. Pages 115-252, 259-426, 445-587 contain the translations of the three remaining parts [see 1770 (E396), 1771 (E409), 1772 (E424)].

E376 Considérations sur les difficultés qu'on rencontre dans l'exécution des verres objectifs délivrés de toute confusion. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 117-142. According to the note on p. 117, it was read on October 15, 1761.

E377 Recherches sur les télescopes à réflexion et les moyens de les perfectionner. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 143-184 + 3 figures. According to the note on p. 143, it was read on February 25, 1762.

E378 Recherches sur une autre construction des télescopes à réflexion. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 185-194 + 2 figures. According to the note on p. 185, it was read on February 25, 1762; C. G. J. Jacobi indicates that a treatise with this title was presented to the Academy on June 24, 1762. A treatise "Sur les moyens de procurer aux télescopes à réflexion un plus grand champ" was presented on the same day, according to Jacobi. The current location of this treatise is unknown.

E379 Sur la confusion que cause dans les instrumens dioptriques la diverse réfrangibilité des rayons. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 195-225 + 1 diagram. According to the note on p. 195, it was read on September 2, 1762.

E380 Considérations sur les nouvelles lunettes d'Angleterre de Mr. Dollond, et sur le principe qui en est le fondement. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 226-248 + 2 figures. According to the note on p. 226, it was read on September 16, 1762.

E381 Sur les avantages des verres objectifs composés de deux verres simples. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 249-264 + 3 figures. The presentation date is unknown.

E382 Remarques sur l'effet du frottement dans l'équilibre. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [18], (1762), 1769, p. 265-278 + 5 figures. According to the note on p. 265, it was read on March 16, 1758; C. G. J. Jacobi indicates that a treatise with this title was presented to the Academy on April 27, 1758.

E383 Méthode pour porter les verres objectifs des lunettes à un plus haut degré de perfection. Par M. L. Euler.

Mémoires de l'académie des sciences de Berlin [23], (1767), 1769, p. 131-164 + 1 diagram. The presentation date is unknown.

E384 Recherches sur les inégalités de Jupiter et de Saturne. Par M. Léonard Euler, de l'academie royale des sciences de Paris, de celles de Londres, de Pétersbourg, de Berlin, &c. [A figure with the caption "Cette figure se rapporte à la page 6 de ce mémoire."] A Paris, chez Pancouke, rue & à côté de la comédie françoise. M.DCC.LXIX. Avec approbation & privilege du roi.[9]

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 7, 1769. (2) + 84 pages. After the real title page, another is found: "Recherches sur les irrégularités (!) du mouvement de Jupiter et de Saturne". Motto: "Nihil est enim, quod aut natura extremum invenerit, aut doctrina primum. Ad Herenn. Lib. III." Awarded in 1752.

Also see 1768 (E343B, 344B: German translation of the "Lettres à une princesse d'Allemagne"; E364A), 1770 (E388A: Russian translation of "Algebra").

1770.

E385 Institutionum calculi integralis volumen tertium, in quo methodus inveniendi functiones duarum et plurium variabilium, ex data relatione differentialium cujusvis gradus pertractatur. Una cum appendice de calculo variationum et supplemento, evolutionem casuum prorsus singularium circa integrationem aequationum differentialium continente. Auctore Leonhardo Eulero acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin. et Londin. Petropoli, impensis academiae imperialis scientiarum 1770.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (8) + 639 pages + 1 diagram. Consists of two parts, and an "Appendix" and a "Supplementum." The first part (investigatio functionum duarum variabilium ex data differentialum cujusvis gradus relatione) contains three "sectiones" (de investigatione duarum variabilium functionum ex data differentialium cujusvis gradus relatione; de investigatione duarum variabilium functionum ex data differentialium secundi gradus relatione; de investigatione duarum variabilium functionum ex data differentialium tertii altiorumque graduum relatione) with 6, 5, and 3 chapters, respectively: I: 1. De natura aequationum differentialium, quibus functiones duarum variabilium determinantur in genere. I: 2. De resolutione aequationum, quibus altera formula differentialis per quantitates finitas utcunque datur. I: 3. De resolutioneaequationum, quibus binarum formularum differentialium altera per alteram utcunque datur. I: 4. De resolutione aequationum, quibus relatio inter binas formulas differentiales et unicam trium quantitatum variabilium proponitur. I: 5. De resolutione aequationum, quibus relatio inter quantitates $\left(\frac{dz}{dx}\right), \left(\frac{dz}{dy}\right)$, et binas trium variabilium x, y, z, quaecunque datur. I: 6. De resolutione aequationum, quibus relatio inter binas formulas differentiales $\left(\frac{dz}{dx}\right), \left(\frac{dz}{dy}\right)$, et omnes tres variabiles x, y, z, quaecunque datur. II: 1. De formulis differentialibus secundi gradus in genere. II: 2. De una formula differentiali secundi gradus per reliquas quantitates utcunque

[9] To my knowledge there was only one edition, namely the one published by Pancoucke with a special title page and then included in the *Recueil*.

data. II: 3. Si duae vel omnes formulae secundi gradus per reliquas quantitates determinantur. II: 4. Alia methodus peculiaris hujusmodi aequationes integrandi. II: 5. Transformatio singularis earundem aequationum. III: 1. De resolutione aequationum simplicissimarum unicam formularum differentialem involventium. III: 2. De integratione aequationum altiorum per reductionem ad inferiores. III: 3. De integratione aequationum homogenearum, ubi singuli termini formulas differentiales ejusdem gradus continent. The second part (investigatio functionum trium variabilium ex data differentialium relatione) contains 4 chapters: 1. De formulisdifferenttialibus functionum tres variabiles involventium. 2. De inventione functionum trium variabilium ex dato cujuspiam formulae differentialis valore. 3. De resolutione aequationum differentialium primi gradus. 4. De resolutione aequationum differentialium homogenearum. The appendix (de calculo variationum) contains 7 chapters: 1. De calculo variationum in genere. 2. De variatione formularum differentialium duas variabiles involventium. 3. De variatione formularum integralium simplicium duas variabiles involventium. 4. De variatione formularum integralium complicatarum duas variabiles involventium. 5. De variatione formularum integralium variabiles involventium, et duplicem relationem implicantium. 6. De variatione formularum differentialium tres variabiles involventium, quarum relatio unica aequatione continetur. 7. De variatione formularum integralium, tres variabiles involventium, quarum una ut functio binarum reliquarum spectatur. The "Supplementum" relates to the differential equation of the elliptic integral.
Also see 1768 (E342), 1769 (E366) and 1794(E660).

E385[2] Leonhardi Euleri institutionum calculi integralis volumen tertium, in quo methodus inveniendi functiones duarum et plurium variabilium, ex data relatione differentialium cujusvis gradus pertractatur. Una cum appendice de calculo variationum et supplemento, evolutionem casuum prorsus singularium circa integrationem aequationum differentialium continente. Editio altera et correctior. Petropoli, impensis academiae imperialis scientiarum 1793.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, (6) + 524 pages + 1 diagram.
Also see 1768 (E342[2]), 1769 (E366[2]) and 1794(E660).

E385[3] Leonhardi Euleri institutionum calculi integralis volumen tertium in quo methodus inveniendi functiones duarum et plurium variabilium, ex data relatione differentialium cujusvis gradus pertractatur. Una cum appendice de calculo variationum et supplemento, evolutionem casuum prorsus singularium circa integrationem aequationum differentialium continente. Editio tertia. Petropoli impensis academiae imperialis scientiarum 1827.

Kgl. Library in Berlin.
Example Used: G. E.
4^0, (6) + 524 pages + 1 diagram.
Also see 1768 (E342[3]), 1769 (E366[3]) and 1794(E660[2]).

E385[4] Leonhardi Euleri institutionum calculi integralis volumen tertium in quo methodus inveniendi functiones duarum et plurium variabilium, ex data relatione differentialium cujusvis gradus pertractatur. Una cum appendice de calculo variationum et supplemento, evolutionem

casuum prorsus singularium circa integrationem aequationum differentialium continente. Editio quarta. Petropoli impensis academiae imperialis scientiarum 1895.

Report by N. Sonin.
4^0, (6) + 524 pages + 1 diagram.

E385A Translated into German: Leonhard Euler's vollständige Aleitung zur Integralrechnung. Aus dem Lateinischen ins Deutsch übersetzt von Joseph Salomon, k. k. Professor. Dritter Band, welcher die Methode, aus einer gegebenen Relation der Differenzialien eines beliebigen Grades Functionen zweyer oder mehrerer Veränderlichen zu finden, behandelt, nebst einem Anhange über die Variationsrechnung und einem Supplemente. Wien, Carl Gerold 1830.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, VI + 520 pages + 1 diagram.
Also see 1768 (E342A), 1769 (E366A) and 1794(E660A).

E386 Dioptricae pars secunda, continens librum secundum, de constructione telescopiorum dioptricorum cum appendice de constructione telescopiorum catoptrico-dioptricorum. Auctore Leonhardo Eulero acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin. et Lond. Petropoli impensis academiae imperialis scientiarum 1770.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, (6) + 592 pages + 3 diagrams. Contains three "sectiones" and an "appendix" with 5, 3, 3, and 4 chapters respectively: I: 1. De telescopiis in genere. I: 2. De lentibus objectivis compositis atque perfectis. I: 3. De distributione telescopiorum in tria genera praecipua. I: 4. De telescopiis primi generis, quae imagine vera destituuntur et objecta situ erecto repraesentant. I: 5. De ulteriore telescopiorum primi generis perfectione una pluribusve lentibus adjiciendis. II: 1. De telescopiis simplicioribus secundi generis, ex unica vitri specie paranda. II: 2. De ulteriori horum telescopiorum perfectione quam quidem unicam vitri speciem adhibendo assequi licet. II: 3. De ulteriori telescopiorium secundi generis perfectione diversas vitri species adhibendo. III: 1. De telescopiis simplicioribus tertii generis ex unica vitri specie paratis. III: 2. De telescopiis terrestibus communibus eorumque perfectione. III: 3. De altera tertii generis telescopiorum specie principali eorumque perfectione. A: 1. De imaginibus per specula sphaerica formatis, earumque diffusione. A: 2. De computo confusionis dum praeter lentes etiam specula ad instrumenta dioptrica conficienda adhibentur. A: 3. De telescopiis catadioptricis minore speculo concavo instructis. A: 4. De telescopiis catadioptricis minore speculo convexo instructis.
Reviewed in *Allg. deutsche Bibl*. 17:1, 1772, p. 259-260. *Götting. gel. Anz*. 1771, p. 1128.
Also see 1769 (E367) and 1771 (E404).

A version is listed as E367A.

E387 Vollständige Anleitung zur Algebra von Hrn.Leonhard Euler. Erster Theil. Von den verschiedenen Rechnungs-Arten, Verhältnissen und Proportionen. St. Petersburg, gedruckt bey der Kays. Acad. der Wissenschaften 1770.

Kgl. Library in Berlin.
Example Used: G. E.

8^0, (16) + 356 pages. The first part has three sections: 1. Von den verschiedenen Rechnungs-Arten mit einfachen Größen. 2. Von den verschiedenen Rechnungs-Arten mit zusammengesetzten Größen. 3. Von den Verhältnissen und Proportionen. The three sections contain 23, 13 and 13 chapters respectively. The whole work was certainly finished by 1767, since the two parts of the Russian translation appear in 1768.
Reviewed in *Allg. deutsche Bibl*. 13: 2, 1770, p. 544. *Beytr. z. Erlanger gel. Anmerk.* 1770, p. 214. *Götting gel. Anz*. 1771, p. 113-114 (Kästner).
A handwritten Italian translation was found in the library of Fürsten B. Boncompagni.
Continued in E388.

E387[2] Leonhard Euler vollständige Anleitung zur Algebra. Erster Theil von den verschiedenen Rechnungsarten, Verhältnissen und Proportionen. Mit Röm. Kayserl. und Churfürstl. Sächß. allergnädigsten Privilegiis. St. Petersburg 1771. bey der Kayserlichen Akademie der Wissenschaften.

University Lib. in Halle.
Example Used: G. E.
8^0, (12) + 256 pages. There are examples of this edition which have the statement "Lund 1771. Auf Kosten C. F. Schjermann, und in Commission bey Rothens Erben und Proft, Buchhändlern in Copenhagen" on the title page. A careful comparison of the examples of this type has shown that only the title page was changed.
Continued in E388[2].

E387[3] Leonhard Eulers vollständige Anleitung zur niedern und höhern Algebra nach der französischen Ausgabe des Herrn de la Grange mit Anmerkungen und Zusätzen herausgegeben von Johann Philipp Grüson, Professor der Mathematik am Königl. Kadettencorps. Erster Theil. Mit Churfürstl. Sächß. Privilegio. Berlin, bei G. C. Nauk, 1796.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (12) + 312 pages. There are two different editions with this title, one of which has a large Vignette on the title page. The two editions match page for page, and line for line, in general. One can only discover the differences through a careful examination.
Reviewed in *Allg. Literaturz*. 1797: III, p. 43-46. *Götting gel. Anz*. 1797, p. 1317-1318. (Kästner). *Allg. deutsche Bibl*. 34:1, 1797, p. 38-39.
Continued in E388[3].

E387[4] Vollständige Anleitung zur Algebra von Hrn. Leonhard Euler. Erster Theil. Von den verschiedenen Rechnungs-Arten, Verhältnissen und Proportionen. St. Petersburg, 1802. Gedruckt bey der Kaiserlichen Akademie der Wissenschaften.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, XVI + 356 pages.
Continued in E388[4].

E387[5] Vollstandige Anleitung zur Algebra von Leonhard Euler. Neue Ausgabe. Leipzig, Reclam.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, 527 pages, including part 2. Without publication year [1883]. According to a report by A. Gutzmer, the edition was managed by L. Natani.

E387[6] Extract: Auszug aus Leonh. Eulers vollständigen Anleitung zur Algebra mit einigen Erläuterungen und Vermehrungen herausgegeben von J. Jak. Ebert. Erster Theil. Frankfurt am Main, Fleischer 1789.

University Lib. in Marburg.
According to F. W. A. Murhard.
8^0, 246 pages.
Reviewed in *Allg. Litt. Zeit*. 1790: 1, p. 249-250 (also discusses the second part). *Goth. gel. Zeit*. 1790: 1, p. 389. *Allg. deutsche Bibl*. 93: II, 1790, p. 466 (also discussess the second part). *Tübinger gel. Anz*. 1790, p. 760.
Continued in E388[6].

E387[7] Auszug aus Herrn Leonard Eulers vollständigen Anleitung zur Algebra herausgegeben von Johann Jacob Ebert. Prof. der Math. in Wittenberg. Erster Theil. Neue vermehrte und verbesserte Auflage. Berlin 1801, in der Vossischen Buchhandlung.

Example Used: G. E.
8^0, (6) + XXVI + 252 pages.
Continued in E388[7].

E387[8] Auszug aus Herrn Leonard. Eulers vollständigen Anleitung zur Algebra, herausgegeben von Johann Jakob Ebert, Prof. der Math. in Wittenberg. Erster Theil. Dritte verbesserte Auflage. Berlin 1821, in der Vossischen Buchhandlung.

University Lib. in Jena.
Example Used: Polytechn. Lib. in Zurich.
8^0, XXIV + 224 pages.
Continued in E388[8].

E387A Translated into Russian: Универсальная ариѳметика Г. Леонгарда Ейлера, переведенная съ нѣмецкаго подлинника студентами Петромъ Иноходцовымъ и Иваномъ Юдинымъ. Томъ первый, содержащій въ себѣ всѣ образы алгебраическаго вычисленія. Въ Санктпетербургѣ, при императорской академїи наукъ 1768 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:1, (1889), p. 27. The translators are Peter Inochodtzoff and Iwan Judin, as indicated in the title.
Continued in E388A.

E387A² Универсальная ариѳметика Г. Леонгарда Ейлера, переведенная съ нѣмецкаго подлинника студентами Петромъ Иноходцовымъ и ИвановъЮдинымъ. Томъ первый, содержащій въ себѣ всѣ образы алгебраическаго вычисленія. Вторымъ тисненїемъ. Въ Санктпетербургѣ, при императорской академїи наукъ 1768 года.

8^0, (4) + 368 + (4) pages. According to Bobynin's Russian physicist/mathematician bibliography 2:3, (1892), p. 17.
Continued in E388A².

E387A³ Основаній алгебры Леонгарда Ейлера части иервой первыя три отдѣленія, переведенныя съ французскаго яеыка на Россійской, со многими присовокупленіями, Василіемъ Висковатовымъ, академіи наукъ экстраординарнымъ академікомъ. Томъ Iй, содержащій въ себѣ отдѣленія I и IIе. Санкт-Петербургѣ при императорской академіи наукъ 1812 года.

Example Used: Lib. of the Stockholm Sci. Acad.
8^0, (5) + 410 pages. The translator was Wasili Wiskowatoff, as indicated in the title.
Continued in E388A³.

E387B Translated into Dutch: Volledige inleiding tot de Algebra, aan de hand geevende eene gemaklijke Oplossing van alle soorten van Rekeningen, zo in de Wiskunde, Koophandel als andere zaaken door Leonhard Euler. Uit het hoogduits vertaald. Hierbij is gevoegd een zeer eenvoudig middel om zelfs blinde Menschen de Rekenkunde, ja mooglijk het Schrijven en't componeeren van Muzijk te leeren oefenen. Eerste Deel. Te Amsterdam, bij M. Magérus, Boekverkooper, MDCCLXXIII.

Kgl. Library in Amsterdam.
Example Used: Polytechn. Lib. in Zurich.
8^0, 22 + 344 pages + 2 diagrams. The translator was M. I. Swarts Bevel, according to D. Bierens de Haan.
Continued in E388B.

E387B² Volledige inleiding tot de Algebra, aan de hand geevende eene gemaklijke Oplossing van alle soorten van Rekeningen zo in de Wiskunde, Koophandel als andere zaaken door Leonhard Euler. Uit het hoogduits vertaald. Eerste deel. Dordrecht 1807.

According to D. Bierens de Haan.
8^0, XXXII + 402 pages + 2 diagrams.
Continued in E388B².

E387C Translated into French: Élémens d'algèbre par M. Léonhard Euler, traduits de l'Allemand, avec des notes et des additiones. Tome premier. De l'analyse déterminée. A Lyon, chez Jean-Marie Bruyset et à Paris chez la veuve Desaint, libraire rue du Foin-Saint-Jacques. M.DCC.LXXIV. Avec approbation & privilège du roi.

Kgl. Library in Berlin.
Example used: University Lib. in Basel.

8^0, XVI + 704 pages. Translated by Johann Bernouli III. The Lyon 1770 edition does not exist; the "Privilège du roi" is dated September 17, 1771, and according to a letter from Lagrange to d'Alembert on June 29, 1773, the translation appeared then (*Œuvres de Lagrange* 13, Paris 1882, p. 269). On several examples the title page is missing the words "et à Paris … Saint-Jacques," and the words "Pere & fils" are found there instead, but the title is otherwise exactly the same. The statement that an edition appeared in Lyon in 1784, is certainly based on a printing error in the introduction of the first volume of the 1795 edition, where it was said that Bruyest first published the translation in 1784. This printing error is corrected in the 1798 edition. Reviewed in *Journ. des sçav*. 1774, juin. *Allg. deutsche Bibl*. 27: 2, 1775, p. 514.
Continued in E388C.

E387C[2] Élémens d'algèbre par Léonhard Euler, traduits de l'Allemand avec des notes et des additiones. De l'analyse déterminée. A Lyon, chez Bruyset aîné & compagnie. L'an III[e]. de l'ère républicaine.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, XVI + 704 pages.
Continued in E388C[2].

E387C[3] Élémens d'algèbre, par Léonard Euler, traduits de l'Allemand, avec des notes et des annotations. Nouvelle édition revue & corrigée. Tome premier. De l'analyse déterminée. A Pétersbourg; et se trouve à Paris. M.DCC.XCVIII.

Example Used: Polytechn. Lib. in Zurich.
8^0, XVI + 704 pages.
Continued in E388C[3].

E387C[4] Élémens d'algèbre par Léonhard Euler, traduits de l'Allemand, avec des notes et des additions. Nouvelle édition revue et corrigée. Tome premier. De l'analyse déterminée. Paris et Lyon 1801.

According to G. Valentin.
8^0. Continued in E388C[4].

E387C[5] Élémens d'algèbre, par Léonhard Euler, traduits de l'Allemand. Nouvelle édition, revue et augmentée de notes, par J. G. Garnier. Tome premier. Analyse déterminée. Paris, Courcier; Lyon, Maire. Septembre 1807.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, XIV + 563 + (1) pages. A 1788 St. Petersburg edition is cited here on p. IV, most likely because of a printing error.

E387C[6] A version translated into French: Algèbre élémentaire.

Oeuvres complètes d'Euler 3, 1839, p. 37-79, 120-240, 417-436; 4, 1839, p. 3-491.

Republished in *Cours d'arithmètique raisonnèe*, Brussels 1865, p. 73-79, 102-240, 417-436; *Cours complet d'algèbre*, Brussels 1866, p. 3-491 [**E387C^{6}a**].

E387D Translated into Latin: Elementa algebrae, Leonardi Euleri ex gallica in latinam linguam versa cum notis et additionibus. Tomus primus. De analysi indeterminata(!). Venetiis, sumptibus Jo: Antonii Pezzana. MDCCXC. Superiorum permissu, ac privilegio.

Example Used: Polytechn. Lib. in Zurich.
8^0, XVI + 448 pages.
Continued in E388D.

E387E Translated into English: Elements of algebra, by Leonard Euler. Translated from the French; with the critical and historical notes of Mr. Bernoulli. To which are added, the additions of Mr. de la Grange, some original notes by the translator, memoirs of the life of Euler, with an estimate of his character; and a praxis to the whole work; consisting of above two hundred examples. Vol.1. London, Johnson 1797.

British Museum.
Report by G. Valentin.
8^0, Portrait + XLIII + 461 pages. Continued in E388E.

E387E^2 Elements of algebra, by Leonard Euler, translated from the French, with the additions of La Grange, and the notes of the French translator: to which is added an appendix, containing the demonstration of several curious and important numerical propositions, alluded to, but not investigated, in the body of the work, &c. &c. Second edition. Vol. I. London, J. Johnson and Co. 1810.

Example Used: G. E.
8^0, XXIX + (4) + 426 pages.
Continued in E388E^2.

E387E^3 Elements of Algebra, by Leonard Euler. Translated from the French with notes of M. Bernoulli &c. and the additions of M. de la Grange Third edition, carefully revised and corrected by John Hewlett. To which is prefixed a memoir of the life and character of Euler by Francis Horner. London, Longman 1822.

British Museum.
According to Boncompagni's Catalog.
8^0. Includes part 2.
Also see E388E^3.

E387E^4 Elements of Algebra, by Leonard Euler. Translated from the French with notes of Bernoulli and the additions of de la Grange Fourth edition by John Hewlett. London 1828.

According to Boncompagni's Catalog.
8^0. Includes part 2.
Also see E388E^4.

E387E[5] Elements of Algebra, by Leonard Euler, translated from the French; with notes of M. Bernoulli, &c. and the additions of M. de la Grange. Fifth edition, carefully revised and corrected by John Hewlett. To which is prefixed a memoir of the life and character of Euler, by Francis Horner. London, Longman, Orme and Co. 1840.

Example Used: Polytechn. Lib. in Zurich.
8^0, XXX + 593 pages, including part 2.
Also see E388E[5].

E387E[6] Extract translated into English: An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Cambridge, Mass. 1818.

Columbia University Lib. in New York.
Report by L. C. Karpinski.
8^0, XII + 219 pages.
Also see E388E[6].

E387E[7] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Cambridge, Mass. 1821.

Columbia University Lib. in New York.
Report by L. C. Karpinski.
8^0, XII + 219 (?) pages.
Also see E388E[7].

E387E[8] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Third edition. Cambridge, Msss. 1828.

Atheneum Lib. in Boston.
Report by L. C. Karpinski.
8^0. Also see E388E[8].

E387E[9] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Fourth edition. Boston 1836.

Report by L. C. Karpinski.
8^0, XII + 213 pages.
Also see E388E[9].

E387E[10] Elements of algebra. Compiled from Garnier's French translation of Euler. To which are added solutions of several miscellaneous problems with questions and examples for the practice of the students. By Charles Taylor. London 1824.

British Museum.
According to an antique book catalog.
8^0. Also see E388E[10].

E388 Vollständige Anleitung zur Algebra von Hrn. Leonhard Euler. Zweyter Theil. Von Auflösung algebraischer Gleichungen und der unbestimmten Analytic. St. Petersburg. Gedruckt bey der Kays. Acad. der Wissenschaften 1770.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (2) + 532 + (2) pages. The second part has two sections: 1. Von den algebraischen Gleichungen und derselben Auflösung (16 chapters about the solutions of equations of the first four degrees). 2. Von der unbestimmten Analytic. The second section contains 15 chapters: 1. Von der Auflösung der einfachen Gleichungen, worinnen mehr als eine unbekannte Zahl vorkommt. 2. Von der so genannten Regula Coeci, wo aus zwey Gleichungen drey oder mehr unbekannte Zahlen bestimmt werden sollen. 3. Von den zusammengesetzten unbestimmten Gleichungen, wovon der einen unbekannten Zahl nur die erste Potestät vorkommt. 4. Vor der Art diese irrationale Formeln (!) $\sqrt{(a+bx+cxx)}$ rational zu machen. 5. Von den Fällen, da die Formel $a + bx + cxx$ niemahls ein Quadrat werden kann. 6. Von den Fällen in gantzen Zahlen, da die Formel $xx + ab$ ein Quadrat wird. 7. Von einer besondern Methode die Formel $ann + 1$ zu einem Quadrat in gantzen Zahlen zu machen. 8. Von der Art diese Irrational-Formel $\sqrt{(a+bx+cxx+dx^3)}$ rational zu machen. 9. Von der Art diese Irrational-Formel $\sqrt{(a+bx+cxx+dx^3+ex^4)}$ rational zu machen. 10. Von der Art diese Irrational-Formel $\sqrt[3]{(a+bx+cxx+dx^3)}$ rational zu machen. 11. Von der Auflösung dieser Formel $axx + bxy + cyy$ in Factoren. 12. Von der Verwandelung dieser Formel $axx + cyy$ in Quadraten, oder auch höheren Potestäten. 13. Von einigen Formeln dieser Art, $ax^4 + by^4$, welche sich nicht zu Quadrat machen lassen. 14. Auflösung einiger Fragen, die zu diesem Theil der Analytic gehören. 15. Auflösung solcher fragen, worzu Cubi erfordert werden.
Reviewed in *Götting gel. Anz*. 1771, p. 114-115 (Kästner).
Also see E387.

E388² Leonhard Euler vollständige Anleitung zur Algebra. Zweyter Theil von den verschiedenen Rechnungsarten(!), Verhältnissen(!) und Proportionen(!). Mit Röm. Kayserl. und Churfürstl. Sächss. allergnädigsten Privilegiis. St. Petersburg, 1771. bey der Kayserlichen Akademie der Wissenschaften.

University Lib. in Halle.
Example Used: G. E..
8^0, (4) + 384 pages. See E387² for examples with "Lund" given as the place of publication.

E388³ Leonhard Eulers vollständige Anleitung zur niedern und höhern Algebra nach der französischen Ausgabe des Herrn de la Grange mit Anmerkungen und Zusätzen herausgegeben. Von Johann Philipp Grüson, Professor der Mathematik am Königl. Kadettencorps. Zweyter Theil. Mit Churfürstl. Sächs. Privilegio. Berlin, bei G. C. Nauk, 1797.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (10) + 403 + (1) pages. See E387³ about two different editions with this title.

E388[4] Vollständige Anleitung zur Algebra von Hrn. Leonhard Euler. Zweyter Theil. Von Auflösung algebraischer Gleichungen und der unbestimmten Analytik. St.-Petersburg, 1802. Gedruckt bey der Kaiserlichen Akademie der Wissenschaften.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (2) + 530 pages.
Also see E387[4].

E388[5] Vollständige Anleitung zur Algebra von Leonhard Euler. Neue Ausgabe. Leipzig, Reclam.

See E387[5].

E388[6] Extract: Auszug aus Leonh. Eulers vollständigen Anleitung zur Algebra mit einigen Erläuterungen und Verbesserungen herausgegeben von J. Jak. Ebert. Zweiter Theil. Frankfurt am Main, Fleischer 1789.

University Lib. in Marburg.
According to F. W. A. Murhard.
8^0, 282 pages.
Also see E387[6].

E388[7] Auszug aus Herrn Leonard Eulers vollständigen Anleitung zur Algebra herausgegeben von Johann Jacob Ebert. Prof. der Math. in Wittenberg. Zweyter Theil. Neue vermehrte und verbesserte Auflage. Berlin, 1801. in der Vossischen Buchhandlung.

Example Used: G. E.
8^0, (6) + 318 pages.
Also see E387[7].

E388[8] Auszug aus Herrn Leonard Eulers vollständigen Anleitung zur Algebra, herausgegeben von Johann Jakob Ebert, Prof. der Math. in Wittenberg. Zweyter Theil. Dritte verbesserte Auflage. Berlin, 1821, in der Vossischen Buchhandlung.

University Lib. in Jena.
Example Used: Polytechn. Lib. in Zurich.
8^0, IV + 284 pages.
Also see E387[8].

E388A Translated into Russian: Универсальная ариѳметика Г. Леонгарда Ейлера, переведенная съ нѣмецкаго подлинника академїи наукъ адъюнктомъ Петромъ Иноходцовымъ и студентомъ Иваномъ Юдинымъ. Томъ вторый, въ которомъ предлагаются правила рѣшенїя уравненїй, и Дїофанскїй образъ рѣшитъ вопросы. Въ Санктпетербургѣ при императорской академїи наукъ 1769 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2:1, (1889), p. 36.
Peter Inochodtzoff and Iwan Judin were the translators, as indicated in the title.
Also see E387A.

E388A² Универсальная ариѳметика Г. Леонгарда Ейлера, переведенная съ Нѣмецкаго подлинника академїи наукъ адъюнктомъ Петромъ Иноходцовымъ и студентомъ ИваномъЮдинымъ. Томъ вторый, въ которомъ предлагаются правила рѣшенїя уравненїй, и Дїофанскїй образъ рѣшитъ вопросы. Вторымъ тисненїемъ. Въ Санктпетербургѣ при императорской академїи наукъ 1788 года.

8^0, (2) + 524 + (4) pages. According to Bobynin's Russian physicist/mathematician bibliography 2:3, (1892), p. 50.
Also see E387A².

E388A³ Основаній алгебры Леонгарда Ейлера, части иервой первыя три отдѣленія, переведенныя съ французскаго языка на Россійской, со многими присовокупленіями, Василіемъ Висковатовымъ, академіи наукъ экстраординарнымъ академікомъ. Томъ II[и], содержащій въ себѣ отдѣленіе III[е]. Въ Санкт-Петербургѣ при императорской академіи наукъ 1812 года.

Example Used: Lib. of the Stockholm Sci. Acad.
8^0, (4) pages + p. 411-710. Translated by Wasili Wiskowatoff, as indicated in the title.
Also see E387A³.

E388B Translated into Dutch: Volledige inleiding tot de Algebra, aan de hand geevende eene gemaklijke Oplossing van alle soorten van Rekeningen, zo in de Wiskunde, Koophandel als andere zaaken; door Leonhard Euler. Uit het hoogduits vertaald. Hierbij is gevoegd een zeer eenvoudig middel om zelfs blinde Menschen de Rekenkunde, ja mooglijk het Schrijven en't componeeren van Muzijk te leeren oefenen. Tweede Deel. Te Amsterdam, Bij M. Magérus, bookverkooper, MDCCLXXIII.

Kgl. Library in Amsterdam.
Example Used: Polytechn. Lib. in Zurich.
8^0, (6) + 546 pages.
Also see E387B.

E388B² Volledige inleiding tot de Algebra, aan de hand geevende eene gemaklijke Oplossing van alle soorten van Rekeningen, so in de Wiskunde, Koophandel als andere zaaken door Leonhard Euler. Uit het hoogduits vertaald. Tweede deel. Dordrecht 1807.

According to D. Bierns de Haan.
8^0, 556 pages.
Also see E387B².

E388C Translated into French: Élémens d'algèbre par M. Léonard Euler, traduits de l'Allemand, avec des notes et des additiones. Tome second. De l'analyse indéterminée. A

Lyon, chez Jean-Marie Bruyset et à Paris chez la veuve Desaint, libraire rue du Foin-Saint-Jacques. M.DCC.LXXIV. Avec approbation & privilege du roi.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (2) + 664 + (3) pages. See E387C above about examples with a somewhat altered title page ("A Lyon chez Jean-Marie Bruyset, père & fils. M.DCC.LXXIV").
Also see E387C.

E388C[2] Élémens d'algèbre par Léonard Euler, traduits de l'Allemand, avec des notes et des additiones. De l'analyse indéterminée. A Lyon, chez Bruyset ainé & compagnie. L'an IIIe. (!) de l'ère républicaine.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (4) + 668 pages.
Also see E387C[2].

E388C[3] Élémens d'algèbre, par Léonard Euler, traduits de l'Allemand, avec des notes et des additions. Nouvelle édition revue & corrigée. Tome second. De l'analyse indéterminée. A Pétersbourg; et se trouve à Paris. M.DCC.XCVIII.

Example Used: Polytechn. Lib. in Zurich.
8^0, (4) + 668 pages.
Also see E387C[3].

E388C[4] Élémens d'algèbre par Léonard Euler, traduits de l'Allemand, avec des notes et des additions. Nouvelle édition revue et corrigée. Tome second. De l'analyse indéterminée. Paris et Lyon 1801.

According to G. Valentin.
8^0. Also see E387C[4].

E388C[5] Élémens d'algèbre, par Léonard Euler, traduits de l'Allemand, avec des notes et des additions. Nouvelle édition, revue et corrigée. Tome second. Analyse indéterminée. Paris, Courcier; Lyon, Maire. Septembre 1807.

Kgl. Library in Berlin.
Example Used: G. E.
8^0, (2) + II + 485 pages.
Also see E387C[5].

E388C[6] A version translated into French: Algèbre élémentaire.

See E387C[6].

E388D Translated into Latin: Elementa algebrae, Leonardi Euleri ex gallica in latinam linguam versa cum notis et additionibus. Tomus secundus. De analysi indeterminata. Venetiis, sumptibus Jo: Antonii Pezzana. MDCCXC. Superiorum permissu, ac privilegio.

Example Used: Polytechn. Lib. in Zurich.
8^0, VIII + 510 pages.
Also see E387D.

E388E Translated into English: Elements of algebra, by Leonard Euler. Translated from the French; with the critical and historical notes of Mr. Bernoulli. To which are added, the additions of Mr. de la Grange, some original notes by the translator, memoirs of the life of Euler, with an estimate of his character; and a praxis to the whole work; consisting of above two hundred examples. Vol. II. London, Johnson 1797.

British Museum.
Report by G. Valentin.
8^0, VII + 552 pages. p. 261-493: "Additions by de la Grange"; p. 495-528: "Notes"; p. 530-552: "Praxis or questions for practics."
Also see E387E.

E388E^2 Elements of algebra, by Leonard Euler, translated from the French; with the additions of La Grange, and the notes of the French translator: to which is added an appendix, containing the demonstration of several curious and important numerical propositions, alluded to, but not investigated, in the body of the work, &c. &c. Second edition. Vol. II. London, J. Johnson and Co. 1810.

Example Used: G. E.
8^0, (5) + 483 pages.
Also see E387E^2.

E388E^3 Elements of algebra, by Leonard Euler. Translated from the French with notes of M. Bernoulli &c. and the additions of M. de la Grange. Third edition, carefully revised and corrected by John Hewlett. To which is prefixed a memoir of the life and character of Euler by Francis Horner. London, Longman 1822.

See E387E^3.

E388E^4 Elements of algebra, by Leonard Euler. Translated from the French with the notes of Bernoulli and the additions of de la Grange. Fourth edition by John Hewlett. London 1828.

See E387E^4.

E388E^5 Elements of algebra, by Leonard Euler, translated from the French; with notes of M. Bernoulli, &c. and the additions of M. de la Grange. Fifth edition, carefully revised and corrected. By John Hewlett. To which is prefixed a memoir of the life and character of Euler, by Francis Horner. London, Longman, Orme and Co. 1840.

See E387E[5].

E388E[6] Extract translated into English: An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Cambridge, Mass. 1818.

See E387E[6].

E388E[7] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Cambridge, Mass. 1821.

See E387E[7].

E388E[8] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Third edition. Cambridge, Msss. 1828.

See E387E[8].

E388E[9] An introduction to the elements of Algebra. Selected from the algebra of Euler by John Farrar. Fourth edition. Boston 1836.

See E387E[9].

E388E[10] Elements of algebra. Compiled from Garniers French translation of Euler. To which are added solutions of several miscellaneous problems with questions and examples for the practice of the students. By Charles Taylor. London 1824.

See E387E[10].

E389 Recherches et calculs sur la vraie orbite elliptique de le comète de l'an. 1769 et son tems périodique, exécutées sous la direction de Mr. Léonard Euler, par les soins de Mr. Lexell, adjoinct de l'académie impériale des sciences de Saint-Petersbourg. A St. Pétersbourg, de l'imprimerie impériale des sciences 1770.

Example Used: Polytechn. Lib. in Zurich.
4^0, 159 pages + 2 tables. According to the records, it was presented to the St. Petersburg Academy on September 10, 1770.
Reviewed in *Allg. deutsche Bibl*. 16:2, 1772, p. 657.

E390 Considerationes de trajectoriis orthogonalibus. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 46-71.
According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 10-12.

E391 De formulis integralibus duplicatis. Auctore L. Eulero.

About the theory of the double integral.
Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 72-103 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 13-15.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 416-445 [**E391a**]; ed. tertia 4, 1845, p. 416-445 [**E391b**].

E391A Translated into German: Von den doppleten Integralausdrücken.

Leonhard Eulers Vollständige Aleitung zur Integralrechnung 4, 1830, p. 393-421. Translated by J. Salomon.

E391B Extract translated into French: Sur l'évaluation du volume d'un parallépipède à une base sphérique.

Nouvelles annales de mathématiques 4, 1845, p. 422-423.

E392 Evolutio insignis paradoxi circa aequalitatem superficierum. Auctore L. Eulero.

The paradox consists of showing that for infinetly many different surfaces, the surface element $\sqrt{1+p^2+q^2}\,dxdy$ can have the same form.
Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 104-128 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-18.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E393 De summis serierum numeros Bernoullianos involventium. Auctore L. Eulero.

Various sequences whose sums are Bernoulli numbers, which are mostly special cases of the Euler Summation Formula.
Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 129-167.
According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 18-20.

E394 De partitione numerorum in partes tam numero quam specie datas. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 168-187.
According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 20-22.
Reprinted in *Commentat. arithm*. 1, 1849, p. 391-400 [**E394a**].

A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E395 De inventione quotcunque mediarum proportionalium citra radicum extractionem. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 188-214.
According to the records, it was presented to the St. Petersburg Academy on August 18, 1768.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-25.
Reprinted in *Commentat. arithm*. 1, 1849, p. 401-413 [**E395a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E396 Sectio secunda de principiis motus fluidorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 14, (1769): I, 1770, p. 270-386 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on March 17, 1766.
Abstract: *A. a. O., Summarium dissertationum*, p. 32-35.
A translation listed as 375A.

E397 Expositio methodorum, cum pro determinanda parallaxi solis ex observato transitu Veneris per solem, tum pro inveniendis longitudinibus locorum super terra, ex observationibus eclipsium solis, una cum calculis et conclusionibus inde deductis.

Novi commentarii academiae scientiarum Petropolitanae 14, (1769): II, 1770, p. 322-554 + 6 diagrams. This is actually the joint title of four treatises with separate titles, namely "Methodus ex observato transitu Veneris per solem, inveniendi parallaxin solis" (p. 322-334); "Methodus ex eclipsi solari in pluribus locis observata, elementa motus lunae, hincque longitudinem locorum, super terra accurate determinandi" (p. 335-349); "Calculus eclipsis solaris cum conclusionibus inde deductis pro determinationibus longitudinum geographicarum" (p. 350-420); "Calculus observationum circa transitum Veneris per solem institutarum" (p. 421-554). It is indicated in the "Summarium dissertationum" that all of these were written by Euler. They were probably presented to the St. Petersburg Academy before August 20, 1770.
Abstract: *A. a. O., Summarium dissertationum*, p. 7-12.

E398 Nouvelle méthode de déterminer les dérangemens dans le mouvement des corps célestes, causés par leur action mutuelle. Par Mr. L. Euler.

The main problem is: "Toutes les forces dont un corps céleste est poussée, étant connues, déterminer son mouvement en sorte qu'on soit en état d'assigner pour tout tems la vrai place qu'il occupe dans le ciel."
Mémoires de l'académie des sciences de Berlin [19], (1763), 1770, p. 141-179 + 1 diagram.
According to the note on p. 141, it was read on July 8, 1762.
Reviewed in *Recueil pour les astronomes* 1, 1771, p. 67-71.

E399 Réflexions sur les diverses manières dont on peut représenter le mouvement de la lune. Par Mr. L. Euler.

Mémoires de l'académie des sciences de Berlin [19], (1763), 1770, p. 180-193. According to the note on p. 180, it was read on December 18, 1763; C. G. J. Jacobi indicates that a treatise with this title was presented to the Academy on December 15, 1763.
Reviewed in *Recueil pour les astronomes* 1, 1771, p. 71-72.

E400 Considérations sur le problème des trois corps. Par Mr. L. Euler.

Mémoires de l'académie des sciences de Berlin [19], (1763), 1770, p. 194-220 + 2 figures.
According to the note on p. 194, it was read on December 4, 1765.
Reviewed in *Recueil pour les astronomes* 1, 1771, p. 73-76.

E401 Nouvelle manière de comparer les observations de la lune avec la théorie. Par Mr. L. Euler.

Mémoires de l'académie des sciences de Berlin [19], (1763), 1770, p. 221-234 + 1 figure.
According to the note on p. 221, it was read on February 6, 1766.
Reviewed in *Recueil pour les astronomes* 1, 1771, p. 76.

E402 Du mouvement des absides des satellites de Jupiter. Par Mr. L. Euler.

Mémoires de l'académie des sciences de Berlin [19], (1763), 1770, p. 311-338 + 2 figures.
According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on September 20, 1759.
Reviewed in *Recueil pour les astronomes* 1, 1771, p. 80-81.

E403 L. Eulers Nöthige Berechnung zur Einrichtung einer Wittwenkasse.

Neues Hamburgisches Magazin 43, 1770, p. 3-12. Reported by A. G. Kästner (see the letter from J. A. Euler to Kästner on Spetember 1/12, 1769; *Mitteilungen der Naturforschenden Gesellschaft in Bern* 1847, p. 164). Mathematical description of a theory given by J. A. Kritter in 1768; according to the records, it was presented to the St. Petersburg Academy on April 3, 1769.

Also see 1746 (E82a, 88a, 91b), 1768 (E343^2, 344^2: new editions of the "Lettres à une princesse d'Allemagne").

1771.

E404 Dioptricae pars tertia, continens librum tertium, de constructione microscopiorum tam simplicum, quam compositorum. Auctore Leonhardo Eulero. Acad. scient. Borussiae directore vicennali et socio acad. Petrop. Parisin. et Lond. Petropoli, impensis academiae imperialis scientiarum. 1771.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, (7) + 440 pages. In addition to the "Introductio" (de microscopiis in genere, ubi traduntur praecepta generalia circa constructionem microscopiorum), it contains four "sectiones". The first "sectio" (de microscopiis simplicibus) contains 3 chapters: 1. De microscopiis simplicibus, unica lente constantibus. 2. De microscopiis simplicibus duabus pluribusve lentibus convexis inter se proxime junctis constantibus. 3. De microscopiis simplicibus ab omni confusione immunibus. The second "sectio" (de microscopiis compositis, in quibus unica imago realis occurit) is not divided into chapters. The third "sectio" (de microscopiis compositis, in quibus unica imago realis occurrit: quo omnia microscopia hucusque usitata sunt referenda) contains 4 chapters: 1. De microscopiis simplicibus hujus generis. 2. De ulteriori horum microscopiorum perfectione, dum iis major claritatis gradus plures lentes loco objectivae substituendo comparatur. 3. De summa horum microscopiorum perfectione, dum ope lentium ex alia vitri specie confectarum omnis confusio ad nihilum redigitur. 4. De ulteriori amplificatione campi huic microscopiorum generi conciliandi. The fourth "sectio" (de microscopiis compositis, in quibus duae imagines reales occurrunt) contains 3 chapters: 1. De microscopiis simplicioribus hujus generis. 2. De microscopiis hujus generis magis compositis. 3. De microscopiorum hujus generis summa perfectione, dum ea ab omni confusione liberantur.
Reviewed in *Nova acta erud.* 1774, p. 147-158, 316-334. *Allg. deutsche Bibl.* 17: 1, 1772, p. 259-260.
Also see 1769 (E367) and 1770 (E386).
A version is listed as E367A.

E405 Solutio problematis, quo duo quaeruntur numeri, quorum productum tam summa, quam differentia eorum, sive auctum sive minutum fiat quadratum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 29-50. According to the records, it was presented to the St. Petersburg Academy on March 5, 1770.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-11.
Reprinted in *Commentat. arithm*. 1, 1849, p. 414-426 [**E405a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E406 Observationes circa radices aequationum. Auctore L. Eulero.

About the formula for the sum of the *p*th power of the roots of an *n*th-order algebraic equation. The meaning of this formula if the sequence which occurs in it is continued to infinity, and the solution of trinomial equations. About the correlation between ordinary equations and differential equations.
Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 51-74. According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 11-13.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E407 Problema algebraicum ob affectiones prorsus singulares memorabile. Auctore L. Eulero.

Orthogonality conditions for rectangular corrdinates in space. The coefficients of linear homogeneous transformations, which let a sum of n square numbers remain constant, will be expressed using trigonometric functions for $n = 3$, 4, and 5, and also using rational parametric functions for $n = 3$ and 4.
Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 75-106.
According to the records, it was presented to the St. Petersburg Academy on March 5, 1770.
Abstract: *A. a. O., Summarium dissertationum*, p. 13-15.
Reprinted in *Commentat. arithm*. 1, 1849, p. 427-443 [**E407a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E408 De curva rectificabili in superficie sphaerica. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 195-216 + 5 figures. According to the records, it was presented to the St. Petersburg Academy on March 5, 1770
Abstract: *A. a. O., Summarium dissertationum*, p. 22-24.

E409 Sectio tertia de motu fluidorum lineari potissimum aquae. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 219-360 + 38 figures. According to the records, it was presented to the St. Petersburg Academy on March 17, 1766.
Abstract: *A. a. O., Summarium dissertationum*, p. 25-28.

E410 Genuina principia doctrinae de statu aequilibrii et motu corporum tam perfecte flexibilium quam elasticorum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 381-413 + 5 figures. According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 32-34.

E411 De ictu glandium contra tabulam explosarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 15, (1770), 1771, p. 414-436 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 34-36.

E412 Solution d'une question très difficile dans le calcul des probabilités. Par Mr. Euler.

The problem relates to a lottery game.
Mémoires de l'académie des sciences de Berlin [25], (1769), 1771, p. 285-302. According to C. G. J. Jacobi, a treatise with this title was presented to the Berlin Academy on November 29, 1770.

E413 Mémoire sur la manière la plus advantageuse de suppléer à l'action du vent sur les grands vaisseaux. De promotione navium sine vi venti.

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 8, 1771, 47 pages. The author is named in the "Avertissement," and not in the title. The title given above is found on p. 3. The title on the title page reads: "Mémoire sur la manière la plus avantageuse de suppléer à l'action du vent sur les grands vaisseaux. Présenté à l'académie à l'occasion du prix de 1753." Motto on the title page: "Tali remigio navis se tarda movebat. Virg. Aeneid. Liv. 5." The treatise, which is written in Latin, was awarded an "Accessit" in 1753.

E414 Investigatio perturbationum quibus planetarum motus ob actionem eorum mutuam afficiuntur. Auctore Leonhardo Eulero, matheseos professore, academiarum Parisiensis, Berolinensis & Petropolitanae socio. … Haec dissertatio meruit praemium duplicatum anno M.DCC.LVI.

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 8, 1771, 138 pages + 1 diagram. Motto on the title page:

Sidera quod tantis cieant se viribus aequis
In motu terrae plurima signa docent.

E415 Examen des efforts qu'ont à soutenir toutes les parties d'un vaisseau dans le roulis & dans le tangage. Ou recherches sur la diminution de ces mouvemens. Piece qui a partagé le prix de l'académie en 1759. Par M. L. Euler, directeur de l'académie royale des science & belles-lettres de Prusse …

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 8, 1771, 47 pages + 2 diagrams. Motto on the title page: "Insequitur clamorque virûm stridorque rudentum".

E416 Meditationes in quaestionem utrum motus medius planetarum semper maneat aeque velox, an successu temporis quampiam mutationem patiatur? & quaenam sit ejus causa? … A Carolo Euler, Leonhardi filio. Praemio donatae anno M.DCC.LX.

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 8, 1771, 44 pages + 1 diagram. Motto on the title page: "Ipse Pater statuit, quaevis coeli astra moveret"; probably written by L. Euler.

Also see 1770 (E387^2, 388^2: new edition of "Algebra").

1772.

E417 Lettres à une princess d'Allemagne sur divers sujets de physique & de philosophie Tome troisième A Saint Petersbourg de l'imprimerie de l'académie impériale des sciences MDCCLXXII.

8^0, XIV + (2) + 404 pages + 7 diagrams. Anonymous (see 343). The third part contains letters 155-234 (August 18, 1761 – May 18, 1762; the last letter is undated). The letters treat the following subjects: 155. Sur le fameux problème des longitudes: Déscription générale de la terre, de son axe, ses deux poles et l'équateur. 156. De la grandeur de la terre, des méridiens et du plus court chemin. 157. De la latitude et de l'influence qu'elle a sur les saisons et la longueur des jours. 158. Des parallèles, du premier méridien et des longitudes. 159. Sur le choix du premier méridien. 160. Sur la méthode de déterminer la latitude ou l'élévation du pole. 161. Premier moyen de parvenir à la connoissance des longitudes, par l'estime du chemin parcouru. 162. Continuation de la lettre précédente, et des défauts de cette première méthode. 163. Deuxième méthode de déterminer les longitudes par le moyen d'une horloge exacte. 164. Continuation de la lettre précédente, et éclaircissemens ultérieurs. 165. Les éclipses de la lune considérées comme une troisième méthode pour déterminer les longitudes. 166. Les observations des éclipses des satellites de Jupiter donnent une quatrième méthode pour déterminer les longitudes. 167. Le mouvement de la lune, fournit la cinquième méthode de déterminer les longitudes. 168. Des avantages de cette dernière méthode sur les précédentes, et de son degré de précision. 169. Sur la boussole et sur les propriétés d'une aiguille aimantée. 170. Sur la déclinaison de la boussole et sur la manière de l'observer. 171. Sur la variation que la déclinaison de la boussole éprouve au même endroit. 172. Sur la carte des déclinaisons, et de quelle manière elle pourroit servir à découvrir les longitudes. 173. Pourquoi les aiguilles aimantées affectent en chaque lieu de la terre une certaine direction; pourquoi cette direction est différente en différens endroits, et par quelle raison elle change au même endroit avec le tems. 174. Eclaircissemens ultérieurs sur la cause et la variation de la déclinaison des aiguilles aimantées. 175. Sur l'inclinaison des aiguilles aimantées. 176. Sur la véritable direction magnétique, et sur la matière subtile qui produit la force magnétique. 177. Continuation sur la nature de cette matière magnétique, et de son courrant rapide. Des canaux magnétiques. 178. Du tourbillon magnétique, et sur l'action des aimans l'un sur l'autre. 179. Sur la nature du fer et de l'acier et de quelle manière ils peuvent recevoir la force magnétique. 180. Sur l'action des aimans dans le fer, et des phénomènes, qu'on observe lorsqu'on met des pièces de fer dans le voisinage d'un aimant. 181. Sur l'armature des aimans. 182. Sur l'action et la force des aimans armés. 183. Sur la manière de communiquer à l'acier la force magnétique: de la manière d'aimanter les aiguilles de boussoles; de al simple touche, de ses défauts et des moyens d'y remédier. 184. Sur la double touche et les moyens de conserver la matière magnétique dans les barres aimantées. 185. Comment on communique à des barres d'acier une force magnétique très grande, par le moyen d'autres barres qui n'en ont qu'une très faible. 186. Sur la fabrique des aimants artificiels en forme de fers à chéval(!). 187. Sur la dioptrique: des instrumens qu'elle nous fournit pour renforcer notre vüe: des télescopes et des microscopes. Des différentes figures qu'on donne aux verres ou lentilles. 188. Sur la différence entre les lentilles par rapport à la courbure de leurs faces convexes et concaves. Distribution des lentilles en trois classes. 189. De l'effet des verres convexes. 190. Sur le même sujet et de la distance de foyer des verres convexes. 191. Sur la distance de l'image des objets. 192. Sur la grandeur de ces images. 193. Sur les verres ardens. 194. Sur les chambres obscures. 195. Réflexions sur la représentation faite dans les chambres obscures. 196. Sur les lanternes magiques et les microscopes solaires. 197. Sur l'usage et l'effet d'un verre convexe simple, lorsqu'on regarde immédiatement à travers. 198. Sur l'usage et l'effet d'un verre concave, lorsqu'on regarde immédiatement à travers. 199. De la grandeur apparente de l'angle visuel, et sur les microscopes en général. 200. Sur l'estime du grossissement des objets contemplés par des microscopes. 201. Proposition fondamentale pour la construction des microscopes simples et devis de quelques microscopes simples. 202.

Sur les bornes et les défauts des microscopes simples. 203. Sur les télescopes, et leur effet. 204. Sur les lunettes d'approche ou de poches. 205. Sur leurs grossissemens. 206. Sur les défauts de ces lunettes de poche, et sur le champ apparent. 207. Détermination du champ apparent pour les lunettes de poches. 208. Sur les lunettes astronomiques, et de leurs grossissemens. 209. Sur leur champ apparent, et le lieu de l'œil. 210. Détermination du grossissement d'une lunette astronomique, et construction de telles lunettes qui grossissent les objets un nombre donné de fois. 211. Du degré de clarté. 212. Sur l'ouverture des objectifs. 213. Sur la netteté dans l'expression; sur l'espace de diffusion causée par l'ouverture des objectifs, et considérée comme la première source du défaut de netteté dans la représentation. 214. De la diminution de l'ouverture des verres, et des autres moyens de diminuer l'espace de diffusion, et de la réduire même à rien. 215. Des objectifs composés. 216. De la formation des objectifs simples. 217. Seconde source du défaut de netteté dans la représentation faite par les lunettes. Sur la différente réfrangibilté des rayons. 218. Sur un moyen de remédier à ce défaut, en employant des objectifs composés de verre et d'eau. 219. Sur un autre moyen plus praticable pour remédier à ce défaut. 220. Récapitulation de toutes les qualités qu'une bonne lunette doit avoir. 221. Sur les lunettes terrestres à quatre verres. 222. Sur l'arrangement des verres dans ces lunettes. 223. Sur quelques précautions à observer dans la construction des lunettes: de la nécessité de bien noircir l'intérieur des tubes, et sur les diaphragmes. 224. Comment les lunettes nous représentent la lune, les planètes, le soleil, et les étoiles fixes: pourquoi ces dernières nous paroissent plus petites par les lunettes qu'à la vüe simple. Estime de la distance des étoiles fixes en comparant leurs grandeurs apparentes avec celle du soleil. 225. Sur la question: pourquoi la lune et le soleil nous paroissent plus grands à leurs lever et à leur coucher, que lorsqu'ils se trouvent à quelque hauteur? Des difficultés qu'on rencontre en voulant expliquer ce phénomène. 226. Réflexions sur cette question embarrassante, et applanissement des difficultés qu'on y rencontre. Explications absurdes. 227. Acheminement à la vraïe explication de ce phénomène. La lune paroit être plus éloignée de nous lorsqu'elle est à l'horizon, que lorsqu'elle se trouve au haut du ciel. 228. Les espaces du ciel nous paroissent sous la forme d'une voûte applatie vers le zénith. 229. La lumière des astres qui se trouvent à l'horizon est beaucoup affoiblie, par ce que leurs rayons ont un beaucoup plus grand chemin à parcourir dans notre basse atmosphère, que lorsque les astres se trouvent à une hauteur; et c'est par cette raison que nous les jugeons, à l'horizon, être plus éloignés de nous et plus grands, que s'ils sont à une hauteur. 230. Sur quelques autres illusions, qui viennent de ce que nous jugeons un objet d'autant plus éloigné de nous que sa lumière ou son éclat nous paroit foible. De quelle manière les peintres en profitent. 231. Sur le bleu du ciel. 232. Sur ce que nous observerions si l'air étoit parfaitement transparent, et de la situation déplorable, dans laquelle une telle parfaite transparence de l'air nous jetteroit. 233. Sur la réfraction des rayons de lumière à leur entrée dans l'atmosphère, et sur le effets de cette réfraction. Des crépuscules et du lever et coucher apparens des astres. 234. Sur ce que les astres nous paroissent plus élevés qu'ils ne le sont effectivement, et sur la table des réfractions.
Reviewed in *Recueil pour les astromones* 3, 1776, p. 330.
Also see 1768 (E343 and 344).

E417[2] Lettres à une princesse d'Allemagne sur divers sujets de physique & de philosophie Tome troisième A Francfourt et Leipzic 1774.

Kgl. Library in Berlin.
Example used: Polytechn. Lib. in Zurich.
8^0, XIV + 446 pages + (1) + 7 diagrams.

Also see 1768 (E343[2] and 344[2]).

E417[3] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Tome troisième. Berne, chez la société typographique. M.DCC.LXX.V.

University Lib. in Berlin.
Example used: University Lib. in Upsala.
8^0, X + 351 pages + 11 diagrams. There are examples with "Londres" listed as place of publication instead of "Berne."
Also see 1768 (E343[3] and 344[3]).

E417[4] Lettres de M. Euler à une princesse d'Allemagne, sur différentes questions de physique et de philosophie. Nouvelle édition, Avec des additions, par MM. le marquis de Condorcet et de la Croix. Tome troisième. A Paris, chez Royer, libraire, quai des Augustins, à la descente du Pont-neuf. M.DCC.LXXXIX.

University Lib. in Halle.
Example used: Polytechn. Lib. in Zurich.
8^0, (4) + 400 pages + 7 diagrams.
Also see 1768 (E343[4] and 344[4]).

E417[5] Lettres à une princesse d'Allemagne, sur divers sujets de physique et de philosophie, par L. Euler. Nouvelle édition, conforme à l'édition originale de l'académie des sciences de St. Pétersbourg revue et augmentée de diverses notes par J.-B. Labey et précédée de l'éloge d'Euler par de Condorcet. Paris, Veuve Courcier 1812.

See 1768 (E344[5]).

E417[6] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie; enrichies d'un fac-simile, et de plusieurs lettres inédites; avec une préface et des notes par M. Laurentie. Paris, bureau de la bibliothèque choisie 1829.

See 1768 (E344[6]).

E417[7] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler. Bruxelles 1839.

See 1768 (E344[7]).

E417[8] Lettres de L. Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie précédées de l'éloge d'Euler par Condorcet et annotées par M. A. A. Cournot. Paris, Hachette 1842.

See 1768 (E344[8]).

E417[9] Euler. Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie, précédées de l'éloge d'Euler par Condorcet. Nouvelle édition, avec une introduction et des notes, par Emile Saisset. Paris, Charpentier 1843.

See 1768 (E343[9]).

E417[10] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie . Par L. Euler. Précédées de l'éloge d'Euler par Condorcet. Nouvelle édition avec une introduction et des notes par E. Saisset. Paris, Charpentier 1859.

Also see 1768 (E344[10]).

E417[11] Lettres à une princesse d'Allemagne sur divers sujets de physique et de philosophie. Par L. Euler. Nouvelle édition. Paris 1862.

See 1768 (E344[11]).

E417[12] Lettres d'Euler à une princesse d'Allemagne sur divers sujets de physique et de philosophie accompagnées de l'éloge d'Euler par Condorcet et de 215 figures gravées sur bois intercalées dans le texte Avec une introduction et des notes par Emile Saisset. Paris, Charpentier 1866.

See 1768 (E344[12]).

E417A Translated into Russian: Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣкоторой нѣмецкой принцессѣ съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ. Часть третія. Цѣна 70 коп. Въ Санктпетербургѣ при императорской академїи наукъ 1774 года.

8^0, 14 + 406 pages + 9 diagrams. According to Bobynin's Russian physicist/mathematician bibliography 2: 1 (1889), p. 80. Translated by Stepan Rumowskij, as indicated in the title. Also see 1768 (E343A and 344A).

E417A[2] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть третія. Изданіе второе. Въ Санктпетербургѣ при императорской академїи наукъ 1785 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2: 2, (1890), p. 99. Also see 1768 (E343A[2] and 344A[2]).

E417A[3] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя

Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть третія. Въ Санктпетербургѣ при императорской академїи наукъ 1791 года.

8^0, 14 + 406 pages + 9 diagrams. According to Bobynin's Russian physicist/mathematician bibliography 2: 3, (1892), p. 121.
Also see 1768 (E343A[3] and 344A[3]).

E417A[4] Письма о разныхъ физическихъ и филозофическихъ матеріяхъ, писанныя къ нѣ которой нѣмецкой принцессѣ, съ Французскаго языка на Россїйскїй переведенныя Степаномъ Румовскимъ, академїи наукъ членомъ, астрономомъ и профессоромъ. Часть третія. Изданіе второе. Въ Санктпетербургѣ при императорской академїи наукъ 1796 года.

8^0. According to Bobynin's Russian physicist/mathematician bibliography 2: 4, (1893), p. 70.
Also see 1768 (E343A[4] and 344A[4]).

E417B Translated into German: Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Dritter Theil. St. Petersburg, Riga, und Leipzig, bey Johann Friedrich Hartknoch, 1773.

University Lib. in Bonn.
Example used: G. E.
8^0, (16) + 358 pages + 11 diagrams. There are examples with 1774 listed as the publication year.
Also see 1768 (E343B and 344B).

E417B[2] Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Dritter Theil. Zweyte Auflage. Leipzig, bey Johann Friedrich Junius 1780.

Kgl. Library in Berlin.
Report by G. Valentin.
8^0, (16) + 358 pages + 11 diagrams. There appear to be examples of the second edition which have the statement: “St. Petersburg, Riga und Leipzig, bey Johann Friedrich Hartknoch 1776” on the title page.
Also see 1768 (E343B[2] and 344B[2]).

E417B[3]? Briefe an eine deutsche Prinzessinn über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Dritter Theil. Leipzig 1784.

It is doubtful whether more than two volumes of the third edition ever appeared.
Also see 1768 (E343B[3] and 344B[3]).

E417B[4] Leonhard Eulers Briefe über verschiedene Gegenstände der Naturlehre. Nach der Ausgabe der Herren Condorcet und de la Croix aufs neue aus dem Französischen übersetzt und mit Anmerkungen, Zusätzen und neuen Briefen vermehrt von Friedrich Kries, Lehrer an dem

Gothaischen Gymnasium. Dritter Band. Mit drey Kupfertafeln. Leipzig im Verlage der Dyckschen Buchhandlung 1794.

Kgl. Library in Berlin.
Example used: University Lib. in Basel.
8^0, (8) + 424 pages + 3 diagrams.
Reviewed in *Götting. gel. Anz.* 1794, p. 1199-1200 (Kästner).
Also see 1768 (E343B[4] and 344B[4]).

E417B[5] Physikalische Briefe für Gebildete aller Stände von Leonhard Euler und Dr. Johann Müller. Stuttgart, G. B. Müllers Verlagshandlung 1848.

University Lib. in Berlin.
Example used: Polytechn. Lib. in Zurich.
8^0. Also see 1768 (E343B[5]).

E417B[6] Physikalische Briefe für Gebildete aller Stände von Leonhard Euler und Johann Müller. Neue vermehrte und verbesserte Auflage in vier Teilen, mit vielen Holzschnitten. Stuttgart, G. B. Müllers Verlagsbuchhandlung 1853.

University Lib. in Marburg.
Example used: G. E.
8^0. Also see 1768 (E343B[6]).

E417C Translated into Dutch: Brieven over de vornaamste Onderwerpen der Natuurkunde en Wysbegeerte door den Hoogleeraar L. Euler, Lid van de keizerlyke en koninglyke Academien te Petersburg, Berlin en Parys &c. &c. Volgens de laatsche Hoogduitsche en Fransche uitgave vertaald. Derde Deel. Te Leyden, by Pieter Pluygers MDCCLXXXVI.

University Lib. in Amsterdam.
Report by G. Valentin.
8^0, XII + 487 pages + 7 diagrams.
Also see 1768 (E343C and 344C).

E417D Translated into Swedish: Leonhard Eulers bref till en tysk prinsessa i åtskilliga physiska och philosophiska ämnen. Tredje delen. Öfversättning. Stockholm, tryckt i kongl. tryckeriet. MDCCLXXXVII.

Polytechn. Lib. in Zurich.
Example used: G. E.
8^0, (13) + 360 + (1) pages + 6 diagrams.
Also see 1768 (E343D and 344D).

E417D[2] Leonhard Eulers bref till en tysk prinsessa i åtskilliga physiska och philosophiska ämnen. Tredje delen. Öfversättning. Stockholm, tryckt hos Anders Zetterberg. MDCCXCVII.

Kgl. Library in Stockholm.
Example Used: Lib. of the Stockholm Sci. Acad.
8^0, (12) + 356 pages + 6 diagrams. It is not indicated on the title page that this is the second edition.

Also see 1768 (E343D^2 and 344D^2).

E417E Translated into Italian: Lettere ad una principessa d'Alemagna sopra diversi soggetti di fisica e di filosofia scritte da Mr. Eulero e tradotte dal franzese con aggiunte di note dall'abate Oronzo Carnevale. Tomo terzo. In Napoli. Presso i fratelli Terres. Con licenza de' Superiori. MDCCLXXXVII.

University Lib. in Naples.
Report by F. Amodeo.
8^0, 404 pages + 11 diagrams.
Also see 1768 (E343E and 344E).

E417F Translated into Danish: Breve til en Prindsesse i Tydskland over adskillige Gienstande af Physiken og Philosophien skrevne i det franske Sprog af Hr. Leonhard Euler, og oversatte efter denne Deels 1774 udkomne Original af C. C. Pflueg. Tredie og sidste Deel. Med 13 Kobbere. Kiøbenhavn 1793. Trykt udi det kongelige Waysenhuses Bogtrykkerie, af Carl Friederich Schubart.

Kgl. Library in Copenhagen.
Report by G. Valentin.
8^0, XII + 404 pages + 13 diagrams.
Also see 1768 (E343F and 344F).

E417G Translated into English: Letters of Euler to a German princess, on different subjects in physics and philosophy. Translated from the French by Henry Hunter with original notes and a glossary of foreign and scientific terms. London, Murray 1795.

See 1768 (E344G).

E417G^2 Letters of Euler on different subjects in physics and philosophy addressed to a German princess, translated from the French by H. Hunter with original notes and a glossary of foreign scientific terms. London, Murray 1802.

See 1768 (E344G^2).

E417G^3 Letters of Euler on different subjects in natural philosophy. With notes and a life of Euler, by David Brewster. Edinburgh 1823.

See 1768 (E344G^3).

E417G^4 Letters of Euler on different subjects in natural philosophy, addressed to a German princess. With notes, and a life of Euler, by David Brewster. Containing a glossary of scientific terms with additional notes, by John Griscom. New York, Harper 1833.

See 1768 (E344G^4).

E417G[5] Letters of Euler on different subjects in natural philosophy addressed to a German princess… New York, Harper 1839.

See 1768 (E344G[5]).

E417G[6] Letters of Euler on different subjects in natural philosophy. Addressed to a German princess… New York, Harper 1840.

See 1768 (E344G[6]).

E417G[7] Letters of Euler on different subjects in natural philosophy, addressed to a German princess… New York, Harper 1842.

See 1768 (E344G[7]).

E417G[8] Letters of Euler on different subjects in physics and philosophy addressed to a German princess… New York 1846.

See 1768 (E344G[8]).

E417G[9] Letters of Euler on different subjects in natural philosophy addressed to a German princess… New York 1858.

See 1768 (E344G[9]).

E418 Theoria motuum lunae, nova methodo pertractata una cum tabulis astronomicis, unde ad quodvis tempus loca lunae expedite computari possunt incredibili studio atque indefesso labore trium academicorum: Johannis Alberti Euler, Wolffgangi Ludovici Krafft, Johannis Andreae Lexell. Opus dirigente Leonhardo Eulero acad. scient. Borussicae directore vicennali et socio acad. Petrop. Parisin. et Lond. Petropoli, typis academiae imperialis scientiarum. 1772.

Kgl. Library in Berlin.
Example used: G. E.

4^0, (16) + 775 pages + 1 diagram. In addition to the "praefatio," it also contains two "libri." The first book (continens ipsam lunae theoriam) contains three "partes": 1. Investigatio aequationum differentialium, motum lunae continentium. 2. Evolutio numerica aequationum pro binis coordinatis *x* et *y*, in praecedente parte constitutarum. 3. Evolutio numerica tertiae aequationis pro coordinata *z*. Then comes a "continuatio partis secundae": Evolutio numerica aequationum pro iis membris coordinatarum *x* et *y*, quorum characteres involvunt inclinationem orbitae lunaris ad eclipticam. The second book (continens adplicationem theoriae lunae ad calculum astronomicum) contains two "partes": 1. Comparatio formularum inventarum cum tabulis celeberrimi de Clairault. 2. Constructio tabularum astronomicarum ex formulis supra inventis. According to the records, it was presented to the St. Petersburg Academy on October 20, 1768. Reviewed in *Götting. gel. Anz*. 1774, p. 233-237 (Kästner). *Recueil pour les astronomes* 3, 1776, p. 326-329.

E418A Extract: Leonhardi Euleri novae tabulae lunares singulari methodo constructae, quarum ope loca lunae ad quodvis tempus expedite computare licet. Petropoli typis academiae imperialis scientiarum MDCCLXXII.

Kgl. Library in Berlin.
Example used: G. E.
8^0, 144 pages. Pages 4-61, 62-73 are copies of pages 702-759 and 690-700 (respectively) of the "Theoria motuum lunae" listed above. Only the "Praefatio" (p. 3, 28 lines) which is dated July 1772, and 9 lines at the beginning of p. 62 are new. Euler's tables end on p. 73; tables from De la Caille and T. Mayer follow after that.
Reviewed in *Recueil pour les astromones* 3, 1776, p. 329-330

E418B A version translated into French: Tables de la lune de M. Euler, mises sous une forme plus commode que celle même de M. Mayer, dont les astronomes font usage depuis plusieurs années.

Connaisance des temps pour 1786, Paris 1784, p. 202-385. Pages 200-201, 393-399 have explanations of Euler's tables.

E419 De solidis quorum superficiem in planum explicare licet. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 3-34 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on March 5, 1770.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-8.

E420 Methodus nova et facilis calculum variationum tractandi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 35-70 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-11.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 590-620 [**E420a**]; ed. tertia 4, 1845, p. 590-620 [**E420b**].

E420A Translated into German: Neue und leichte Methode, die Variationsrechnung zu behandeln.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 551-580. Translated by J. Salomon.

E421 Evolutio formulae integralis $\int x^{f-1} dx (lx)^{\frac{m}{n}}$ integratione a valore $x = 0$ ad $x = 1$ extensa.

Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 91-139.
According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 15.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 78-121 [**E421a**]; ed. tertia 4, 1845, p. 78-121 [**E421b**].

E421A Translated into German: Entwickelung des Integralausdruckes $\int x^{f-1} dx (lx)^{\frac{m}{n}}$, in dem die Integration von $x = 0$ bis $x = 1$ ausgedehnt wird.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 75-116. Translated by J. Salomon.

E422 Problematis cujusdam geometrici prorsus singularis evolutio. Auctore L. Eulero.

The problem is: "Proposita recta positione data *AB* ejusmodi quaeritur curva *AmM*, ut ducta ad ejus punctum quodcunque *M* tangente *MT* rectae illi *AB* in *T* occurrente, recta *TC* angulum *ATM* bisecans eandem curvam in *m* normaliter trajiciat".
Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 140-159 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 16-18.

E423 Considerationes cyclometricae. Auctore L. Eulero.

About the equation $\frac{m}{\sin^2 m} = \frac{n}{\sin^2 n}$ and about quadratic "Lunulae" , where the 5 known cases will be handled.
Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 160-170.
According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 19-21.

E424 Sectio quarta de motu aeris in tubis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 281-425 + 6 diagrams. According to the records, it was presented to the St. Petersburg Academy on March 17, 1766.
Abstract: *A. a. O., Summarium dissertationum*, p. 29-33.
See E375A for a translation.

E425 De perturbatione motus terrae ab actione Veneris oriunda. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 16, (1771), 1772, p. 426-467 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on May 14, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 33-35.

Reviewed in *Recueil pour les astromones* 3, 1776, p. 320. *Journal des savans*, octobre 1774.

Also see 1768 (E344A: Russian translation of the "Lettres à une princesse d'Allemagne").

1773.

E426 Théorie complette de la construction et de la manœuvre des vaisseaux mise à la portée des (!) ceux, qui s'appliquant à la navigation. Par Mr. Léonard Euler. À St. Pétersbourg, de l'imprimérie de l'académie impériale des sciences. 1773.

University Lib. in Gottingen.
Example used: G. E.
8^0, (16) + 354 pages + 11 diagrams. In addition to the dedication, which is dated November 30, 1773, it contains three "partes" and a "supplément," namely: 1. Où l'on considère les vaisseaux en équilibre & hors de course (10 chapters). 2. Où l'on traite de la résistance, que les vaisseaux rencontrent dans leurs courses & de l'action du gouvernail (11 chapters). 3. De la mâture & de la manœuvre des vaisseaux (7 chapters). Supplément. Sur l'action des rames. According to the records, it was presented to the St. Petersburg Academy on April 19, 1773.
Reviewed in *Götting. gel. Anz*. 1774, p. 1300-1303.

E426[2] Théorie complete (!) de la construction et de la manœuvre des vaisseaux, mise à la portée de ceux qui s'appliquant à la navigation. Par M. Léonard Euler. Nouvelle édition corrigée & augmentée. À Paris, rue Dauphine, chez Claude Antoine Jombert, fils aîné. Libraire du roi pour le génie & l'artillerie. M.DCC.LXXVI. Avec approbation et privilege du roi.

Kgl. Library in Berlin.
Example used: G. E.
8^0, (4) + 268 pages + 6 diagrams. This edition, linguistically improved by Kéralio, contains at the end: "Lettre de M. Lexell à M. le marquis de Condorcet, Pétersbourg $\frac{2}{13}$ Décembre 1775" (p. 254-256) and then Lexell's solution to one of the problems discussed in the work (p. 257-265).

E426[3] Extract: Extrait de la théorie complette de la construction et de la manœuvre des vaisseaux mise à la portée de ceux qui s'appliquant à la navigation. Par M. Euler. A la Haye 1777.

According to F. W. A. Murhard.
12^0.

E426A Translated into English: A complete theory of the construction and properties of vessels with practical conclusions for the management of ships made easy to navigators, translated from the Théorie complette de la construction des vaisseaux of the celebrated Leonhard Euler, by Henry Watson. London by Elmsley 1776.

According to an antique book catalog.
8^0. Reveiewed in *Monthly Review* 58, 1778, p. 83-108.

E426A² A complete theory of construction and properties of vessels with practical conclusions for the management of ships made easy to navigators, translated from the Théorie complette de la construction des vaisseaux of the celebrated Leonhard Euler, by Henry Watson. New edition with the life of the translator. London, J. Sewell 1790.

According to F. W. A. Murhard.
8^0, 280 pages.
Reviewed in *Jen. allg. lit. Zeitung* 1791: 3, p. 662.

E426B Translated into Italian: Teoria compita (!) della costruzione e del maneggio de' bastimenti. Ridotta ad uso di quelli che s'applicano alla navigazione del signor Lionardo Eulero. Traduzione dall' originale francese con annotazioni di Simone Stratico pub. prof. di matematica e teoria nautica nell' università di Padova. In Padova MDCCLXXVI. Nella stamperia Penada Con lic. de' sup.

Example used: G. E.
8^0, XXXII + 544 pages + 13 diagrams. Translation of the original edition. Notes from the translator are found on p. 361-540.

E426B² Teoria compiuta della costruzione e della manovra de'vascelli. Messa alla portata di quelli che si applicano alla navigazione dal signor Leonardo Eulero. Ora la prima volta (!) tradotta dalla francese nella lingua italiana. Napoli nella stamperia reale MDCCLXXX.

University Lib. in Naples.
Report by F. Amodeo.
8^0, (8) + 248 pages. According to the dedication, it was translated by Gaetano Carcani. The Paris 1776 edition was used for this translation.

E426C Translated into Russian: Полное умозрѣніе строенія и вожленія кораблей, сочиненное въ пользу учащихся иавигаціи Леоигардомъ Ейлером, а съ французскаго подлинника переведенное академіи наукъ адъюнктомъ Михайломъ Головинымъ. Въ Санктпетербургѣ при имперторской академіи наукъ 1778 года.

8^0, XII + 434 pages + 23 diagrams. According to Bobynin's Russian physicist/mathematician bibliography 2:2, (1890), p. 24-25. Translated by Michail Golowin, as indicated in the title.

E427 Problematis cujusdam Diophantei evolutio. Auctore L. Eulero.

Four simple symmetrical functions of four unknowns will be simultaneously made quadratic.
Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 24-63. According to the records, it was presented to the St. Petersburg Academy on January 13, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 7-8.
Reprinted in *Commentat. arithm*. 1, 1849, p. 450-472 [**E427a**].

E428 Observationes circa bina biquadrata quorum summam in duo alia biquadrata resolvere liceat. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 64-69. According to the records, it was presented to the St. Petersburg Academy on January 13, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-9.
Reprinted in *Commentat. arithm*. 1, 1849, p. 473-476 [**E428a**].

E429 De variis integrabilitatis generibus. Auctore L. Eulero.

About integrated factors of linear differential expressions with two or three independant variables.
Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 70-104.
According to the records, it was presented to the St. Petersburg Academy on August 24, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 9-11.

E430 Observationes circa aequationem differentialem $ydy + Mydx + Ndx = 0$. Auctore L. Eulero.

M and N are functions of x.
Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 105-124.
According to the records, a treatise with this title was presented to the St. Petersburg Academy on December 19, 1765. Another (or the same?) was presented on January 13, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 11-12.

E431 Consideratio aequationis differentio-differentialis:

$$(a+bx)ddz + (c+ex)\frac{dxdz}{x} + (f+gx)\frac{zdx^2}{xx} = 0.$$ Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 125-154.
According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p.12.

E432 Exercitationes analyticae. Auctore L. Eulero.

About the relation between the two sums $\sum_m (-1)^m x^m$ and $\sum_m \frac{1}{(2x+1)^m}$.
Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 173-204.
According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 14-15.

E433 Digressio de trajectoriis tam orthogonalibus quam obliquangulis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 205-248 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 16-17.

E434 De collisione corporum gyrantium. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 272-314 + 2 figures. The presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 19-21.

E435 De collisione corporum pendulorum, tam obliqua, quam motu gyratorio perturbata. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 315-332 + 2 figures. The presentation date is unknown.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-23.

E436 De vera tautochrona in fluido. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 333-348 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 29, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 23-25.

E437 De tautochrona in medio rarissimo, quod resistit in ratione multiplicata quacunque celeritatis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 349-361 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 29, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 25-26.

E438 Dilucidationes de tautochronismo. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 362-380 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 29, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 26-28.

E439 De chordis vibrantibus disquisitio ulterior. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 381-409 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on August 24, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 28-29.

E440 Animadversiones in solutionem Bernoullianam de motu chordarum ex duabus partibus diversae crassitiei compositarum. T. XVI. Nov. Comment. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 410-421 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on July 2, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 30-31.

E441 De motu vibratorio chordarum ex partibus quotcunque diversae crassitiei compositarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 422-431 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on August 24, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 30-31.

E442 De motu vibratorio chordarum crassitie utcunque variabili praeditarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 432-448 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on August 24, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 31-32.

E443 De motu vibratorio laminarum elasticarum, ubi plures novae vibrationum species hactenus non pertractatae evolvuntur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 449-487 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on September 21, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 33.

E444 De motu gravium citissimo super curvis specie datis. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 17, (1772), 1773, p. 488-504 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 34.

E445 L. Euleri Novae demonstrationes circa resolutionem numerorum in quadrata.

Description of numbers of the forms $x^2 + y^2$, $x^2 + 2y^2$, $x^2 + 3y^2$, $x^2 + y^2 + z^2 + u^2$.
Nova acta eruditorum, 1773, p. 193-211. Immediately after the treatise (p. 211-212), there is a theorem that was certainly sent in by Euler: $\int_0^1 \frac{(x-1)dx}{lx} = \log 2$. (Also see treatise E475 about this theorem). According to the records it was submitted on September 21, 1772, then taken back in 1773 and on March 24, 1774, it was presented to the St. Petersburg Academy for the second time.

Reprinted in *Acta. acad. sc. Petrop*. 1777: II, printed 1780, p. 48-69 [**E445a**].
Reprinted in *Commentat. arithm*. 1, 1849, p. 538-548 [**E445b**].

Also see 1768 and 1772 (E343B^2, 344B^2, 417B: German translations of the "Lettres à une princesse d'Allemagne"), 1770 (E387B, 388B: Dutch translation of "Algebra").

1774.

E446 Instruction détaillée pour porter les lunettes de toutes les différentes espèces au plus haut degré de perfection dont elles sont susceptibles tirée de la théorie dioptrique de M. Euler le père et mise à la portée de tous les ouvriers en ce genre par Nicolaus Fuss. Avec la description d'un miscroscope qui peut passer pour le plus parfait dans son espèce et qui est propre à produire tous les grossissemens qu'on voudra. A St.-Pétersbourg, de l'imprimerie de l'académie imp. des sciences 1774.

Kgl. Library in Berlin.
Report by G. Valentin.
4^0, 83 pages + 2 digrams. According to P. H. Fuss, it was presented to the St. Petersburg Academy on June 20, 1774.

E446A Translated into German: Umständliche Anweisung, wie alle Arten von Fernröhren in der größten möglichen Vollkommenheit zu verfertigen sind. Aus des ältern Herrn Eulers Theorie der Dioptrik gezogen, und für alle Künstler in diesem Fache begreiflich gemacht von Hrn. Nicolaus Fuss. Beygefügt ist die Beschreibung eines Mikroskops, das als das vollkommenste in seiner Art anzusehen ist, und zu jeder beliebigen Vergrößerung eingerichtet werden kann. Aus dem Französischen übersetzt und mit einigen Zusätzen vermehrt von Georg Simon Klügel, Professor der Mathematik zu Helmstädt. Leipzig, bei Johann Friedrich Junius. 1778.

Kgl. Library in Berlin.
Example used: G. E.
4^0, 56 pages + 2 diagrams.

E447 Summatio progressionum $\sin.\varphi^\lambda + \sin.2\varphi^\lambda + \sin.3\varphi^\lambda \cdots + \sin.n\varphi^\lambda$;
$\cos.\varphi^\lambda + \cos.2\varphi^\lambda + \cos.3\varphi^\lambda + \cdots + \cos.n\varphi^\lambda$.

Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 24-36. According to the records, it was presented to the St. Petersburg Academy on November 22, 1773.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-11.

E448 Nova series infinita maxime convergens perimetrum ellipsis exprimens. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 71-84 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 13-15.

E449 Demonstrationes circa residua ex divisione potestatum per numeros primos resultantia. Auctore L. Eulero.

Various theorems about remainders and their application in the investigation of factors of numbers.
Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 85-135.
According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-17.
Reprinted in *Commentat. arithm*. 1, 1849, p. 516-537 [**E449a**].

E450 Nova ratio quantitates irrationales proxime exprimendi. Auctore L. Eulero.

Approximate factorization of quantities of the form $a^n + b$ using approximations of $(1 + x)^n$.
Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 136-170.
According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-19.

E451 Solutio problematis de inveniendo triangulo in quo rectae ex singulis angulis latera opposita bisecantes sint rationales. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 171-184.
According to the records, it was presented to the St. Petersburg Academy on August 24, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 20-21.
Reprinted in *Commentat. arithm*. 1, 1849, p. 507-515 [**E451a**].

E452 Resolutio aequationis $Ax^2 + 2Bxy + Cy^2 + 2Dx + 2Ey + F = 0$ per numeros tam rationales, quam integros . Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 185-197.
According to the records, it was presented to the St. Petersburg Academy on November 19, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 21-22.
Reprinted in *Commentat. arithm*. 1, 1849, p. 549-555 [**E452a**].

E453 Insignes proprietates serierum sub hoc termino generali contentarum $x = \frac{1}{2}\left(a + \frac{b}{\sqrt{k}}\right)\left(p + q\sqrt{k}\right)^n + \frac{1}{2}\left(a - \frac{b}{\sqrt{k}}\right)\left(p - q\sqrt{k}\right)^n$. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 198-217.
According to the records, it was presented to the St. Petersburg Academy on November 23, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 33-34.

E454 De resolutione irrationalium per fractiones continuas, ubi simul nova quaedam et singularis species minimi exponitur . Auctore L. Eulero.

The last part is number-theoretical and deals with the question of how to find the minimum worth of certain algebraic expressions of two variables.
Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 218-244.
According to the records, it was presented to the St. Petersburg Academy on December 3, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-27.
Reprinted in *Commentat. arithm*. 1, 1849, p. 570-583 [**E454a**].

E455 Determinatio motus oscillatorii, in praecedente dissertatione pertractati, ex primus mechanicae principiis petita . Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 268-288 + 2 figures. The "preceeding" treatise came from Daniel Bernoulli. According to the records, it was presented to the St. Petersburg Academy on December 9, 1773.
Abstract: *A. a. O., Summarium dissertationum*, p. 30-32.

E456 De pressione ponderis in planum cui incumbit . Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 289-329 + 15 figures. According to the records, it was presented to the St. Petersburg Academy on March 22, 1773.
Abstract: *A. a. O., Summarium dissertationum*, p. 32-34.

E457 De harmoniae veris principiis per speculum musicum repraesentatis . Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 330-353.
According to the records, it was presented to the St. Petersburg Academy on March 22, 1773.
Abstract: *A. a. O., Summarium dissertationum*, p. 35-37.

E457A Translated into French: Des véritables principes de l'harmonie représentés par le miroir musical.

Œuvres complètes d'Euler 5, 1839, p. 252-270.
Republished in *Musique mathématique*, Paris 1865, p. 252-270 [**E457a**].

E458 Nova methodus motus planetarum principalium ad tabulas astronomicas reducendi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 354-376 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on January 13, 1772.
Abstract: *A. a. O., Summarium dissertationum*, p. 37-40.

E459 Disquitio de lentibus objectivis triplicatis, quae vel nullam confusionem pariant, vel etiam datam confusionem a reliquis lentibus ortam destruere valeant. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 377-414.
According to the records, it was presented to the St. Petersburg Academy on June 6, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 41-42.

E460 De applicatione lentium objectivarum compositarum ad omnis generis telescopia. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 18, (1773), 1774, p. 415-500 + 1 diagram. The title given above essentially relates to the section on p. 415-431. Then come the sections: "De perfectione telescopiorum primi generis nullam imaginem realem continentium" (p. 432-447); "De perfectione telescopiorum secundi generis seu astronomicorum, unicam imaginem realem continentium" (p. 448-471); "De perfectione telescopiorum tertii generis, duas imagines reales continentium" (p. 472-295); "Additamentum" (p. 496-500). According to the records, it was presented to the St. Petersburg Academy on June 16, 1744.
Abstract: *A. a. O., Summarium dissertationum*, p. 43-46.

E461 Extrait d'un lettre de M. Euler le père à M. Bernoulli, concernant le mémoire imprimé parmi ceux de 1771. p. 318.

About the divisibility of numbers of the form $10^p \pm 1$ by numbers of the form $2p + 1$.
Nouveaux mémoires de l'académie des sciences de Berlin, 1772, printed 1774, Histoire p. 35-36.
Undated. The treatise mentioned is written by Johann Bernoulli III.
Reprinted in *Commentat. arithm*. 1, 1849, p. 584 [**E461a**].

Also see 1768 (the notes for E343[2], 344[2]), 1770 (E387C, 388C: French translation of "Algebra"), 1772 (E417[2], 417A: new edition and Russian translation of the "Lettres à une princesse d'Allemagne"; the note for E417B).

1775.

E462 De valore formulae integralis $\int \frac{z^{m-1} \pm z^{n-m-1}}{1 \pm z^n} dz$ casu quo post integrationem ponitur $z = 1$. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 3-29. According to the records, it was presented to the St. Petersburg Academy on October 10, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 5-8.

E463 De valore formulae integralis $\int \frac{z^{\lambda-\omega} \pm z^{\lambda+\omega}}{1 \pm z^{2\lambda}} \cdot \frac{dz}{z} (lz)^{\mu}$ casu quo post integrationem ponitur $z = 1$. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 30-65. According to the records, it was presented to the St. Petersburg Academy on October 3, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 8-13.

Reprinted in *Institutiones calculi integralis* 4, 1794, p. 122-154 [**E463a**]; ed. tertia 4, 1845, p. 122-154 [**E463b**].

E463A Translated into German: Von dem Werthe des Integralausdruckes $\int \frac{z^{\lambda-\omega} \pm z^{\lambda+\omega}}{1 \pm z^{2\lambda}} \cdot \frac{dz}{z} (lz)^{\mu}$ für den Fall, wenn nach der Integration $z = 1$ gesetzt wird.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 116-148. Translated by J. Salomon.

E464 Nova methodus quantitates integrales determinandi. Auctore L. Eulero.

The "new method" is based on the fact that the function to be integrated contains a second variable.
Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 66-102 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on October 10, 1744.
Abstract: *A. a. O., Summarium dissertationum*, p. 13-17.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 260-294 [**E464a**]; ed. tertia 4, 1845, p. 260-294 [**E464b**].

E464A Translated into German: Neue Methode, Integralgrößen zu bestimmen.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p.250-281. Translated by J. Salomon.

E465 Demonstratio theorematis Neutoniani de evolutione potestatum binomii pro casibus quibus exponentes non sunt numeri integri. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 103-111.
According to the records, it was presented to the St. Petersburg Academy on July 1, 1773.
Abstract: *A. a. O., Summarium dissertationum*, p. 17-19.

E466 Problema Diophantaeum singulare. Auctore L. Eulero.

The four expressions $xy + xz$, $xy - xz$, $xy + yz$, $xy - yz$ will be simultaneously made quadratic.
Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 112-131.
According to the records, it was presented to the St. Petersburg Academy on March 21, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 20-21.
Reprinted in *Commentat. arithm*. 2, 1849, p. 53-63 [**E466a**].

E467 De tabula numerorum primorum, usque ad millionem et ultra continuanda; in qua simul omnium numerorum non primorum minimi divisores exprimantur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 132-183 + 1 table.
According to the records, it was presented to the St. Petersburg Academy on August 22, 1774.

Abstract: *A. a. O., Summarium dissertationum*, p. 22-26.
Report: *Acta acad. sc. Petrop.* 1777: I, printed 1778, p. X ("Monitum").
Reprinted in *Commentat. arithm*. 2, 1849, p. 64-91 [**E467a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E468 De oscillationibus minimis penduli quotunque pondusculis onusti. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 285-301 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 3, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 38-39.

E469 De motu oscillatorio binarum lancium ex libra suspensarum. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 302-324 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on October 10, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 39-42.

E470 Explicatio motus oscillatorii mirabilis in libra majore observati. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 325-339 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 10, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 43-44.

E471 De motu turbinatorio chordarum musicarum; ubi simul universa theoria tam aequilibrii quam motus corporum flexibilium simulque etiam elasticorum breviter explicatur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 340-370 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on November 10, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 44-45.

E472 Commentatio hypothetica de periculo, a nimia cometae appropinquatione metuendo. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 19, (1774), 1775, p. 499-548 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on January 16, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 58-62.

Also see 1767 (E341A), 1768 and 1772 (E 343^3, 344^3, 417^3: new edition of the "Lettres à une princesse d'Allemagne").

1776.

E473 Éclarcissemens sur les établissemens publics en faveur tant des veuves que des morts avec la déscription d'une nouvelle espèce de tontine aussi favorable au public qu'utile à l'état calculés sous la direction de Monsieur Léonard Euler. Par Mr. Nicolaus Fuss. Adjoint de l'académie impériale des sciences. A St. Pétersbourg, de l'imprimerie de l'académie impériale des sciences.

Kgl. Library in Berlin.
Example Used: Lib. of the Stockholm Sci. Acad.
4^0, 72 pages + 4 tables. Without a publication year [1776]. According to the records, it was presented to the St. Petersburg Academy on February 1 and May 16, 1776.
Reviewed in *Allg. deutsche Bibl*. 36: 1, 1778, p. 508-517.

E473A Translated into German: Erläuterung über die öffentlichen Anstalten zum Besten sowohl der Witwen als Sterbfälle nebst der Beschreibung einer neuen Art von Tontine die für das Publikum eben so bequem als für den Staat nützlich ist. Berechnet unter der Aufsicht des Herrn Leonhard Euler durch Herrn Nicolaus Fuss, Adjunktis der Kaiserl. Akademie der Wissenschafften zu Petersburg. Aus dem Französischen übersetzt und mit einer Einleitung versehen von Johann Augustin Kritter, Senat. und Camerar. in Göttingen. Altenburg, in der Richterschen Buchhandlung 1782.

Example used: Polytechn. Lib. in Zurich.
4^0, 79 pages. Pages 1-18 contain Kritter's introduction.
Reviewed in *Allg. deutsche Bibl*. 58, 1784, p. 558-559.

E474 Solutio quorundam problematum Diophantaeorum. Auctore L. Eulero.

Certain expressions, in which 4 unknown quantities occur, will be simultaneously made quadratic.
Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 48-58. According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 12-14.
Reprinted in *Commentat. arithm*. 1, 1849, p. 444-449 [**E474a**].

E475 Speculationes analyticae. Auctore L. Eulero.

About the integral $\int_0^1 \frac{x^\alpha - x^\beta}{lx}\,dx$ and related integrals.
Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 59-79. According to the records, it was presented to the St. Petersburg Academy on December 8, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 15-18.

E476 Observationes circa novum et singulare progressionum genus. Auctore L. Eulero.

About the Joseph game.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 123-139.
According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 20-24.

E477 Meditationes circa singulare serierum genus. Auctore L. Eulero.

About the series: $\sum_{(r)} \frac{1}{r^m}(1+\frac{1}{2^n}+\cdots+\frac{1}{r^n})$.
Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 140-186.
According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.
Abstract: *A. a. O., Summarium dissertationum*, p. 24-25.

E478 Formulae generales pro translatione quacunque corporum rigidorum. Auctore L. Eulero.

Relates in part to the subject of treatise E407.
Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 189-207 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on October 9, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 26-28.
Reprinted in *Theoria motus corporum rigidorum*, ed. nova, 1790, p. 449-460 [**E478a**].

E478A Translated into German: Allgemeine Formeln für die Versetzung beliebiger starrer Körper.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 557-570. Translated by J. Ph. Wolfers.

E479 Nova methodus motum corporum rigidorum determinandi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 208-238 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on October 16, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 29-33.
Reprinted in *Theoria motus corporum rigidorum*, ed. nova, 1790, p. 460-481 [**E479a**].

E479A Translated into German: Neue Methode, die Bewegung starrer Körper zu bestimmen.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 571-595. Translated by J. Ph. Wolfers.

E480 Regula facilis pro dijudicanda firmitate pontis aliusve corporis similis ex cognita firmitate moduli. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 271-285 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on September 25, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 36-40.

E481 De gemina methodo tam aequilibrium quam motum corporum flexibilium determinandi, et utriusque egregio consensu. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 286-303 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on October 31, 1774.
Abstract: *A. a. O., Summarium dissertationum*, p. 40-43.

E482 De pressione funium tensorum in corpora subjecta, eorumque motu a frictione impedito. Ubi praesertim methodus traditur, motum corporum tam perfecte flexibilium quam utcunque elasticorum non in eodem plano sitorum determinandi. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 304-326 ("dissertatio prima"), 327-342 ("dissertatio altera") + 10 figures. According to the records, it was presented to the St. Petersburg Academy on May 15, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 43-46.

E483 De trajectu citissimo stellae per duos circulos almicantarath datos pro qualibet elevatione poli. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 503-508 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on May 1, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 62-63.

E484 De circulo maximo fixo in coelo constituendo, ad quem orbitae planetarum et cometarum referantur. Auctore L. Eulero.

Novi commentarii academiae scientiarum Petropolitanae 20, (1775), 1776, p. 509-540 + 13 figures. According to the records, it was presented to the St. Petersburg Academy on April 27, 1775.
Abstract: *A. a. O., Summarium dissertationum*, p. 63-68.

Also see 1772 (the note for E417B^2), 1773 (E426^2, 426A, 426B: new edition and translations of "Théorie complette de la construction et de la manœvre des vaisseaux").

1777.

E485 Réponse à la question proposée par l'académie royale des sciences de Paris, pour l'année 1770. Perfectionner les méthodes sur lesquelles est fondée la théorie de la lune, de (!) fixer par

ce moyen celles des équations de ce sattelite, qui sont encore incertaines, et d'examiner en particulier si l'on peut rendre raison, par cette théorie de l'équation séculaire du mouvement de la lune.

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 9, 1777, 94 pages. P. 94 says: "cette pièce est de M. Euler"; according to the foreword of the volume, the treatise was written by L. and J. A. Euler. Motto: "Errantemque canit Lunam. Virg".

E486 Réponse à la question proposée par l'académie royale des sciences de Paris, pour l'année 1772. De perfectionner les méthodes sur lesquelles est fondée la théorie de la lune, de fixer par ce moyen celles des équations de ce sattelite, qui sont encore incertaines, et d'examiner en particulier si l'on peut rendre raison, par cette théorie, de l'équation séculaire du mouvement de la lune. Par M. Euler.

Recueil des pièces qui ont remporté les prix de l'académie royale des sciences 9, 1777, 38 pages. Motto:

> Hic labor extremus, longarum haec meta viarum
> hinc jam digressi, vestris appellimus oris.

Also see 1745 (E77A: English translation of "Neuen Grundsätze der Artillerie"), 1747 (E92A: Italian translation of "Rettung der göttlichen Offenbarung"), 1755 (E217A), 1773 (E426[3]: Extract of "Théorie complette de la construction et de la manœuvre des vaisseaux").

1778.

E487 Réflections de Mr. L. Euler sur quelques nouvelles expériences optiques, communiquées à l'académie des sciences, par Mr. Wilson.

About phosphoresence.
Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778; Histoire p. 71-77. According to the records, it was presented to the St. Petersburg Academy on January 18, 1776.

E488 Observationes in praecedentem dissertationem illustr. Bernoulli . Auctore L. Eulero.

Relates to the treatise by Daniel Bernoulli: "Dijudicatio maxime probabilis plurium observationum discrepantium atque verisimillima inductio inde formanda".
Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 24-33. According to the records, it was presented to the St. Petersburg Academy on December 5, 1776.

E489 De formulis exponentialibus replicatis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 38-60. According to the records, it was presented to the St. Petersburg Academy on June 12, 1777.

E490 De repraesentatione superficiei sphaericae super plano. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 107-132 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775. A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E490A Translated into German: Über die Abbildung einer Kugelfläche in einer Ebene. Von Leonhard Euler.

Klassiker der exakten Wissenschaften 93, Leipzig 1898, p. 3-37. Translated by A. Wangerin.

E491 De projectione geographica superficiei sphaericae. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 133-142 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775. A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E491A Translated into German: Über die Darstellung einer Kugelfläche auf einer Karte. Von Leonhard Euler.

Klassiker der exakten Wissenschaften 93, Leipzig 1898, p. 38-52. Translated by A. Wangerin.

E492 De projectione geographica De-Lisliana in mappa generali imperii Russici usitata. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 143-153 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on October 9, 1775. A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E492A Translated into German: Über die De Lisle'sche Kartenprojection und ihre Anwendung auf die Gesammtkarte des russischen Reiches. Von Leonhard Euler.

Klassiker der exakten Wissenschaften 93, Leipzig 1898, p. 53-64. Translated by A. Wangerin.

E493 Vera theoria refractionis et dispersionis radiorum rationibus et experimentis confirmata. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 174-189. According to the records, it was presented to the St. Petersburg Academy on August 22, 1774.

E494 De figura quam ventus fluido stagnanti inducere valet. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 190-194 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on October 27, 1777.

E495 Considerationes super problemate astronomico in tomo commentarior. veter. IV. pertractato. Auctore L. Eulero.

See the title of treatise E14 (1735).
Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 269-275 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on September 4, 1777.

E496 De figura apparente annuli Saturni pro ejus loco quocunque respectu terrae. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 276-287 + 8 figures. According to the records, it was presented to the St. Petersburg Academy on December 12, 1776.

E497 De apparitione et disaparitione annuli Saturni. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: I, printed 1778, p. 288-316 + 2 diagrams. According to the records, it was presented to the St. Petersburg Academy on December 16, 1776.

Also see 1769 (E367A: German version of "Dioptrica"), 1773 (E426C: Russian translation of "Théorie complette de la construction et de la manœuvre des vaisseaux"), 1774, (E446A: German translation of "Instruction détaillée pour porter les lunettes de toutes les différentes espèces au plus haut degré de perfection").

1779.

E498 Extrait d'un lettre de M. Euler à M. Beguelin, en Mai 1778.

Relates to a treatise by Beguelin about prime numbers in the previous volume of the Berlin journals.
Nouveaux mémoires de l'académie des sciences de Berlin, 1776, printed 1779, p. 337-339. Reprinted in *Commentat. arithm*. 2, 1849, p. 270-271 [**E498a**].

Also see 1753 (E196a), 1801 (708a).

1780.

E499 De integratione formulae $\int \frac{dxlx}{\sqrt{(1-xx)}}$, ab $x = 0$ ad $x = 1$ extensa. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 3-28. According to the records, it was presented to the St. Petersburg Academy on August 19, 1776.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 154-182 [**E499a**]; ed. tertia 4, 1845, p. 154-182 [**E499b**].

E499A Translated into German: Von der Integration der Formel $\int \frac{dxlx}{\sqrt{(1-x^2)}}$ von $x = 0$ bis $x = 1$ ausgedehnt.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 149-176. Translated by J. Salomon.

E500 De valore formulae integralis $\int \frac{x^{a-1}dx}{lx} \cdot \frac{(1-x^b)(1-x^e)}{1-x^n}$ a termino $x = 0$ usque ad $x = 1$ extensae. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 29-47. According to the records, it was presented to the St. Petersburg Academy on August 19, 1776.

E501 Considerationes circa brachystochronas (!). Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 70-88 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on January 14, 1771.

E502 Sur l'effet de la réfraction dans les observations terrestres. Par M. L. Euler.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 129-158 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on January 8, 1778.

E503 De motu oscillatorio penduli cujuscunque, dum arcus datae amplitudinis absolvit. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 159-182 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on July 11, 1776.

E504 De theoria lunae ad majorem perfectionis gradum evehenda. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1777: II, printed 1780, p. 281-327 + 6 figures. According to the records, it was presented to the St. Petersburg Academy on March 6, 1775.

E505 De corporibus regularibus per doctrinam sphaericam determinatis; ubi simul nova methodus, globos sive coelestes sive terrestres charta obducendi, traditur. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 3-19 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on February 17, 1774.

E506 Dilucidationes super methodo elegantissima, qua illustris de la Grange usus est in integranda aequatione differentiali $\frac{dx}{\sqrt{X}} = \frac{dy}{\sqrt{Y}}$. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 20-57. According to the records, it was presented to the St. Petersburg Academy on October 16, 1777.
Reprinted in Institutiones calculi integralis 4, 1794, p. 465-503 [**E506a**]; ed. tertia 4, 1845, p. 465-503 [**E506b**].

E506A Translated into German: Aufklärungen über die höchst elegante Methode, deren sich der berühmte Lagrange bey der Integration der Differenzialgleichung $\frac{dx}{\sqrt{X}} = \frac{dy}{\sqrt{Y}}$ bedient hat.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 441-476. Translated by J. Salomon.

E507 De infinities infinitis gradibus tam infinite magnorum quam infinite parvorum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 102-118. According to the records, it was presented to the St. Petersburg Academy on November 6, 1777.

E508 Determinatio onerum, quae columnae gestare valent. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 121-145 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on December 16, 1776.

E509 Examen insignis paradoxi in theoria columnarum occurentis. Auctore L. Eulero.

The paradox is: "Nulla columna, quantumvis fuerit alta, unquam a proprio pondere frangatur."
Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 146-162 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on January 22, 1778.

E510 De altitudine columnarum sub proprio pondere corruentium. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 163-193 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on January 22, 1778.

E511 Réflexions sur les inégalités dans le mouvement de la terre, causées par l'action de Venus, par Mr. L. Euler.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 297-307 + 1 table. According to the records, it was presented to the St. Petersburg Academy on April 28, 1777.

E512 Investigatio perturbationum, quae in motu terrae ab actione Veneris producunter. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: I, printed 1780, p. 308-316 + 1 table + 1 figure. According to the records, it was presented to the St. Petersburg Academy on May 11, 1780.

Also see 1772 (E417B^2: German translation of the "Lettres à une princesse d'Allemagne"), 1773 (E426B^2: Italian translation of "Théorie complette de la construction et de la manœuvre de vaisseaux; 445a), 1782 (E529A).

1781.

E513 De curvis triangularibus. Auctore L. Euler (!).

The "curvae triangulares" were defined by Euler as "curvae, quae tribus arcubus intus inflexis constant" in other words, a kind of curve with three points of inflection.
Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 3-30 + 12 figures. According to the records, it was presented to the St. Petersburg Academy on May 12, 1774.

E514 De mensura angulorum solidorum. Auctore L. Euler (!).

Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 31-54 + 5 figures. According to the records, it was presented to the St. Petersburg Academy on January 9, 1775.

E515 De casibus quibusdam maxime memorabilibus in analysi indeterminata; ubi imprimis insignis usus calculi angulorum in analysi Diophantaea ostenditur. Auctore L. Eulero.

Several uncertain 4th-degree equations with four unkowns will be solved.
Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 85-110. According to the records, it was presented to the St. Petersburg Academy on May 1, 1780.
Reprinted in *Commentat. arithm*. 2, 1849, p. 366-379 [**E515a**].

E516 De motu oscillatorio duorum corporum ex filo super trochleas traducto suspensorum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 137-149 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on January 9, 1775.

E517 De problemate quodam mechanico, satis obvio, at solutu difficillimo. Auctore L. Eulero.

The problem is: "Si corpus quodcunque *BCD*, plano horizontali politissimo incumbens de puncto *B*, ope fili *BA* in puncto *A* fixum retineatur, eique motus quicunque imprimatur, investigare motum, quo istud corpus deinceps est progressorum."
Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 150-161 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on August 14, 1780.

E518 Solutio gemina problematis, quo motus corporis, filo alicubi alligati, super plano horizontali quaeritur. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 162-169 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on August 14, 1780.

E519 Nova methodus motum planetarum determinandi. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1778: II, printed 1781, p. 277-302 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on February 16, 1775.

E520 Essai d'une théorie de la résistance qu'éprouve la proue d'un vaisseau dans son mouvement. Par M. Léonard Euler.

Mémoires de l'académie des sciences de Paris, 1778, printed 1781, p. 597-602 + 1 diagram. According to a note on p. 597, it was read on February 24, 1781.
Abstract: *A. a. O., Histoire*, p. 40-41.

E521 Extraits de différenets lettres de M. Euler à M. le marquis de Condorcet.

About certain integrals and several about binomial series.
Mémoires de l'académie des sciences de Paris, 1778, printed 1781, p.603-609. From November 3/14, 1775 (p. 603), February 2, 1776 (p. 603-606), September 12/23, 1776 (p. 606-609).
Abstract: *A. a. O., Histoire*, p. 42.

Also see 1744 (E66A: German translation of "Theoria motuum planetarum et cometarum"), 1750 (E149Aa), 1768 (E364Aa).

1782.

E522 De formatione fractionum continuarum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1781, p. 3-29. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775.
A handwritten French translation of this treatise can be found in the Library of the observatory in Uccle, near Brussels.

E523 De tribus numeris quadratis, quorum tam summa, quam summa productorum ex binis sit quadratum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 30-39. According to the records, it was presented to the St. Petersburg Academy on September 7, 1780. Pages 40-48 contain a treatise by J. A. Euler: "Ad dissertationem patris de tribus numeris, quorum tam summa

quam summa productorum ex binis sit quadratum commentatio," which presumably was inspired by Leonhard Euler.
Reprinted in *Commentat. arithm*. 2, 1849, p. 457-461 (The treatise by J. A. Euler is printed on p. 462-466) [**E523a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E524 Trigonometria sphaerica universa, ex primis principiis breviter et dilucide derivata. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 72-86 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on March 12, 1781.

E524A Translated into German: Allgemeine sphärische Trigonometrie in kurzer und durchsichtiger Entwicklung, von den einfachsten Voraussetzungen ausgehend. Von L. Euler.

Klassiker der exakten Wissenschaften 73, Leipzig 1896, p. 40-54. Translated by E. Hammer.

E525 De motu oscillatorio mixto plurium pendulorum ex eodem corpore mobili suspensorum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 89-102 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on October 13, 1774.

E526 Investigatio motuum, quibus laminae et virgae elasticae contremiscunt. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 103-161 + 16 figures.
According to the records, it was presented to the St. Petersburg Academy on November 28, 1774.

E527 Conjectura circa naturam aëris, pro explicandis phaenomenis in atmosphaera observatis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 162-187 + 3 figures.
According to the records, it was presented to the St. Petersburg Academy on August 14, 1780.

E528 Annotatio in praecendentem dissertationem. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 201-202 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on June 21, 1781.
Relates to a treatise by C. G. Kratzenstein: "Tubi iconantidiptici sive duplicantis emendatio."

E529 Theoria parallaxeos, ad figuram terrae sphaeroidicam accomodata. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: I, printed 1782, p. 241-278 + 1 diagram; pages 274-278 contain a "Supplementum de diametro lunae apparente, pro quovis loco, ad quodvis tempus determinando." According to the records, it was presented to the St. Petersburg Academy on March 13, 1780.

E529A Translated into German: Die Theorie der Parallaxen, in Rücksicht auf die sphäroidische Figur der Erde, bearbeitet von Herrn Leonhard Euler.

Astronomisches Jahrbuch oder Ephemeriden für das Jahr 1783 II, Berlin 1780, p. 3-30. According to the footnote on p. 3, the treatise is translated by Mr. Bernoulli from the handwritten Latin version submitted in May 1780. Immediately after (p. 31-35) comes the translation of the "Supplementum" with the separate title: "Von der Bestimmung des scheinbaren Durchmessers des Mondes für einen jeden Ort und eine jede Zeit. Als eine Beylage zum vorigen Aufsatz."

E530 Recherches sur un nouvelle espèce de quarrés magiques. Par M. L. Euler.

Verhandelingen uitgegeven door het zeeuwsch Genootschap der Wetenschappen te Vlissingen 9, Middelburg 1782, p. 85-239. Euler was a member of the society since 1775. According to the records, it was read to the St. Petersburg Academy on March 8, 1779.
Reprinted in *Commentat. arithm*. 2, 1849, p. 302-361 [**E530a**].

Also see 1776 (E473A).

1783.

E531 Leonhardi Euleri Opuscula analytica. Tomus primus. Petropoli typis academiae imperialis scientiarum MDCCLXXXIII.

Kgl. Library in Berlin.
Example used: G. E.
4^0, (4) + 363 pages. The 13 treatises of this volume are listed below as numbers E550-562.
Reviewed in *Allg. deutsche Bibl*. 65, 1786, p. 23-27. *Götting. gel. Anz*. 1785, p. 539-541.

E532 De serie Lambertina, plurimisque ejus insignibus proprietatibus. Auctore L. Eulero.

About a series given by Lambert in the 3rd volume of the *Acta Helvetica*, which describes the roots of a trinomial equation.
Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 29-51. According to the records, it was presented to the St. Petersburg Academy on May 27, 1776.

E533 De motu oscillatorio pendulorum ex filo tenso dependentium. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 95-105 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on October 17, 1774.

E534 Dilucidationes super aliquot casus aequilibrii difficiliores. Auctore L. Eulero.

The main problem is: "Si quatuor virgae rigidae ita invicem jungantur, ut circa angulos libere gyrari queant, tum vero ipsis inter angulos elastra applicentur, quae datis viribus sese contrahendi sint praedita, invenire speciem, quam quadrilaterum ab actione harum virium accipiet, ut in aequilibrio consistat."
Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 106-115 + 4 figures.
According to the records, it was presented to the St. Petersburg Academy on January 19, 1775.

E535 Determinatio omnium motuum quos chorda tensa et uniformiter crassa recipere potest. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 116-125 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on October 17, 1774.

E536 De proprietatibus triangulorum mechanicis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 126-155 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on January 9, 1775.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E537 De figura curvae elasticae contra objectiones quasdam ill. d'Alembert. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 188-192 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on June 10, 1782.

E538 Cautiones necessariae in determinatione motus planetarum observandae. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1779: II, printed 1783, p. 295-334 + 4 figures.
According to the records, it was presented to the St. Petersburg Academy on May 8, 1775.

E539 Supplementum calculi integralis pro integratione formularum irrationalium. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 3-31. According to the records, it was presented to the St. Petersburg Academy on May 1, 1775.
Reprinted with the title: "De integratione formularum differentialum irrationalum"; *Institutiones calculi integralis* 4, 1794, p. 3-31 [**E539a**], ed tertia, 4, 1845, p. 3-31 [**E539b**].

E539A Translated into German: Von der Integration der irrationalen Differenzialformeln. *Leonhard Eulers vollständige Anleitung zur Integralrechnung* 4, 1830, p. 3-31. Translated by J. Salomon.

E540 Nova methodus fractiones quascunque rationales in fractiones simplices resolvendi. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 32-46. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775.

E541 Evolutio producti infiniti $(1-x)(1-xx)(1-x^3)(1-x^4)(1-x^5)(1-x^6)etc.$ in seriem simplicem. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 47-55. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775. p. 47 is missing the word "etc."

E542 De mirabilis proprietatibus numerorum pentagonalium. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 56-75. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 105-115 [**E542a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E543 Problematis cujusdam Pappi Alexandrini constructio. Auctore L. Eulero.

The problem is: "Circulo *ABC*, positione dato, et datis tribus punctis *D*, *E*, *F* in linea recta, inflectere *DAE*, et facere *BC* in directum ipsi *CF*."
Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 91-96 + 1 diagram.
According to the records, it was presented to the St. Petersburg Academy on October 31, 1782.

E544 De motu libero plurium corporum filis colligatorum super plano horizontali. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 107-118 + 3 figures.
According to the records, it was presented to the St. Petersburg Academy on November 7, 1774.

E545 De vi fluminis ad naves sursum trahendas applicanda. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 119-131 + 1 figure.
According to the records, it was presented to the St. Petersburg Academy on October 12, 1775.

E545A Translated into Russian: О силѣ теченія рѣки, приложенной къ судамъ, въ верхъ по той рѣкѣ идущимъ. Изъ сочипеній знаменитаго Эйлера сообщено академикомъ Гурьевымъ.

Технологическій журналъ 2:2, 1805, p. 89-113. According to Bobynin's Russian physicist/mathematician bibliography 3:1 (1894), p. 113.

E546 De statu aequilibrii maris a viribus solis et lunae sollicitati. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 132-153 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on November 2, 1775.

E546A Loosely translated into German: Über den Zustand des Gleichgewichts des Meers, wenn es von Sonne und Mond angezogen wird, von Leonhard Euler in Peterssburg. (!)

Annalen der Physik 30, 1808, p. 29-53. Revised by L. W. Gilbert.

E547 Determinatio facilis orbitae cometae cujus transitum per eclipticam bis observare licuit. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 243-254 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on August 19, 1776.

E548 De variis motuum generibus, qui in satellitibus planetarum locum habere possunt. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 255-279 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on January 16, 1777.

E549 De motibus maxime irregularibus, qui in systemate mundano locum habere possent, una cum methodo hujusmodi motus per temporis spatium quantumvis magnum prosequendi. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: I, printed 1783, p. 280-302 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on January 23, 1777.

E550 De seriebus, in quibus producta ex binis terminis contiguis datam constituunt progressionem.

Opuscula analytica 1, 1783, p. 3-47. According to the records, it was presented to the St. Petersburg Academy on July 4, 1771.

E551 Varia artificia in serierum indolem inquirendi.

About the series $x + 3x^2 + 7x^3 + 19x^4 + 51x^5 + \ldots$ and generalizations of the same.
Opuscula analytica 1, 1783, p. 48-63. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.

E552 Observationes circa divisionem quadratorum per numeros primos.

Opuscula analytica 1, 1783, p. 64-84. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Reprinted in *Commentat. arithm*. 2, 1849, p. 477-486 [**E552a**].

E553 Observationes analyticae.

About continued fractions that generate successive numerators and denominators of arithmetical series.
Opuscula analytica 1, 1783, p. 85-120. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.

E554 Disquitio accuratior circa residua ex divisione quadratorum altiorumque potestatum per numeros primos relicta.

Opuscula analytica 1, 1783, p. 121-156. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.
Reprinted in *Commentat. arithm*. 2, 1849, p. 487-506 [**E554a**].

E555 De eximio usu methodi interpolationum in serierum doctrina.

Opuscula analytica 1, 1783, p. 157-210. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.

E556 De criteriis aequationis $fxx + gyy = hz^2$ utrum ea resolutionem admittat nec ne?

Opuscula analytica 1, 1783, p. 211-241. According to the records, it was presented to the St. Petersburg Academy on December 7, 1772.
Reprinted in *Commentat. arithm*. 2, 1849, p. 556-569 [**E556a**].

E557 De quibusdam eximiis proprietatibus circa divisores potestatum occurrentibus.

Opuscula analytica 1, 1783, p. 242-295; pages 268-595 contain an "Additamentum." According to the records, it was presented to the St. Petersburg Academy on January 25, 1773.
Reprinted in *Commentat. arithm*. 2, 1849, p. 1-26 [**E557a**].

E558 Proposita quacunque progressione ab unitate incipiente, quaeritur, quot ejus terminos ad minimum addi oporteat, ut omnes numeri producantur?

Opuscula analytica 1, 1783, p. 296-309. According to the records, it was presented to the St. Petersburg Academy on March 22, 1773.
Reprinted in *Commentat. arithm*. 2, 1849, p. 27-34 [**E558a**].

E559 Nova subsidia pro resolutione formulae $axx + 1 = yy$.

Opuscula analytica 1, 1783, p. 310-328. According to the records, it was presented to the St. Petersburg Academy on September 23, 1773.
Reprinted in *Commentat. arithm*. 2, 1849, p. 35-43 [**E559a**].

E560 Miscellanea analytica.

Proof of the Wilson Theorem. Various problems about making expressions quadratic. Sums of the positive powers of roots of an nth-degree equation.
Opuscula analytica 1, 1783, p. 329-344. According to the records, it was presented to the St. Petersburg Academy on November 15, 1773.
Reprinted in *Commentat. arithm*. 2, 1849, p. 44-52 [**E560a**].

E561 Variae observationes circa angulos in progressione geometrica progredientes.

Infinite products and series of trigonometric functions, whose arguments are of the form $a^n\varphi$.
Opuscula analytica 1, 1783, p. 345-352. According to the records, it was presented to the St. Petersburg Academy on November 15, 1773.

E562 Quomodo sinus et cosinus angulorum multiplorum per producta exprimi queant.

Opuscula analytica 1, 1783, p. 353-363. According to the records, it was presented to the St. Petersburg Academy on May 12, 1774.

Also see 1745 (E77B: French translation of "Neuen Grundsätze der Artillerie"), 1772 (E417B[3]: German translation of the "Lettres à une princesse d'Allemagne").

1784.

E563 De ellipsi minima dato parallelogrammo rectangulo circumscribenda.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 3-17 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on February 15, 1773.

E564 Speculationes circa quasdam insignes proprietates numerorum. Auctore L. Eulero.

About the quantity of numbers which are smaller than a given number and relatively prime to it.
Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 18-30. According to the records, it was presented to the St. Petersburg Academy on October 9, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 127-133 [**E564a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E565 De plurimis quantitatibus transcendentibus, quas nullo modo per formulas integrales exprimere licet. Auctore L. Eulero.

About various transcendental expressions and series, which can't be summed up, for example: $\sum_{(n)} x^{\frac{n(n+1)}{2}}$.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 31-37. According to the records, it was presented to the St. Petersburg Academy on October 16, 1775.

E566 De inductione ad plenam certitudinem evehenda. Auctore L. Eulero.

Factorization of numbers into four square or three triangular numbers.
Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 38-48. According to the records, it was presented to the St. Petersburg Academy on October 19, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 134-139 [**E566a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E567 Dilucidationes de motu chordarum inaequaliter crassarum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 99-132 + 2 figures.
According to the records, it was presented to the St. Petersburg Academy on December 1, 1774.

E568 De motu penduli circa axem cylindricum, fulcro datae figurae incumbentem, mobilis, remota frictione. Dissertatio prior. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 133-163 + 6 figures.
According to the records, it was presented to the St. Petersburg Academy on August 19, 1776.
Reprinted in *Theoria motus corporum solidorum*, ed. nova, 1790, p. 482-504 [**E568a**].

E568A Translated into German: Von der Bewegung eines Pendels, welches um eine clyindrische, und in einer Gabel von gegebener Form liegende Axe beweglich ist.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 596-620. Translated by J. Ph. Wolfers.

E569 De motu penduli circa axem cylindricum, fulcro datae figurae incumbentem, mobilis, habita frictionis ratione. Dissertatio altera. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 164-174 + 5 figures.
According to the records, it was presented to the St. Petersburg Academy on August 19, 1776.
Reprinted in *Theoria motus corporum solidorum*, ed. nova, 1790, p. 584-592 [**E569a**].

E569A Translated into German: Von der Bewegung eines Pendels um eine cylindrische Axe, welche auf einer Gabel von gegebener Form liegt, unter Berücksichtigung der Reibung.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 733-742. Translated by J. Ph. Wolfers.

E570 De inventione longitudinis locorum ex observata lunae distantia a quadam stella fixa cognita. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 301-307 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on October 20, 1777.

E571 De eclipsibus solaribus in superficie terrae per projectionem repraesentandis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1780: II, printed 1784, p. 303-323 + 7 figures. According to the records, it was presented to the St. Petersburg Academy on March 13, 1780.

E572 Nova methodus integrandi formulas differentiales rationales sine subsidio quantitatum imaginariarum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 3-47. According to the records, it was presented to the St. Petersburg Academy on March 6, 1775.

E573 De duplici genesi tam epicycloidum quam hypocycloidum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 48-59 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on December 11, 1775.

E574 De curvis rectificabilibus in superficie coni recti ducendis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 60-73 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on July 8, 1776.

E575 De mirabilibus proprietatibus unciarum, quae in evolutione binomii ad potestatem quamcunque evecti occurrunt. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 74-111. According to the records, it was presented to the St. Petersburg Academy on May 13, 1776.
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E576 De oscillationibus minimis funis libere suspensi. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 157-177 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on October 31, 1774.

E577 De perturbatione motus chordarum ab earum pondere oriunda. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 178-190 + 3 figures. According to the records, it was presented to the St. Petersburg Academy on November 7, 1774.

E578 De perturbatione motus planetarum et cometarum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: I, printed 1784, p. 297-340 + 10 figures. According to the records, it was presented to the St. Petersburg Academy on December 5, 1776.

E579 Calculs sur les ballons aérostatiques, faits par feu M. Léonard Euler, tels qu'on les a trouvés sur son ardoise, après sa mort arrivée le 7 Septembre 1783.

Mémoires de l'académie des sciences de Paris, 1781, printed 1784, 264-268. Euler's essay (p. 265-268) is written in Latin; before that there is a "Avertissiment" in French (p. 264-265).

Also see 1768 and 1772 (E343B^3, 344B^3, 417B^3: German translation of the "Lettres à une princesse d'Allemagne"), 1772 (E418B); also 1745 (the note on E77A).

1785.

E580 Leonhardi Euleri Opuscula analytica. Tomus secundus. Petropoli typis academiae imperialis scientiarum MDCCLXXXV.

Kgl. Library in Berlin.
Example used: G. E.
4^0, (4) + 346 pages + 2 diagrams. The 15 treatises of this volume are listed below as numbers E586-600.
Reviewed in *Allg. deutsche Bibl*. 72, 1787, p. 19-22. *Götting. gel. Anz*. 1786, p. 1553-1556.

E581 Plenior explicatio circa comparationem quantitatum in formula integrali $\int \frac{Zdz}{\sqrt{(1+mzz+nz^4)}}$ contentarum, denotante Z functionem quamcunque rationalem ipsius zz.
Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: II, printed 1785, p. 3-22. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 446-464 [**E581a**], ed. tertia 4, 1845, p. 446-464 [**E581b**].

E581A Translated into German: Vollständigere Erörterung rücksichtlich der Vergleichung der Größen, welche in dem Integralausdrucke $\int \frac{Zdz}{\sqrt{(1+mz^2+nz^4)}}$ enthalten sind, wobey Z irgend eine rationale Function von z^2 bezeichnet.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 422-440. Translated by J. Salomon.

E582 Uberior evolutio comparationis quam inter arcus sectionum conicarum instituere licet. Auctore L. Eulero.

About properties of the elliptic integral.
Acta academiae scientiarum Petropolitanae, 1781: II, printed 1785, p. 23-44 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775.

E583 De numero memorabili, in summatione progressionis harmonicae naturalis occurrente. Auctore L. Eulero.

About the Euler constant 0.5772156649…
Acta academiae scientiarum Petropolitanae, 1781: II, printed 1785, p. 45-75. According to the records, it was presented to the St. Petersburg Academy on February 22, 1776.

E584 De insignibus proprietatibus unciarum binomii ad uncias quorumvis polynomiorum extensis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: II, printed 1785, p. 76-89. According to the records, it was presented to the St. Petersburg Academy on September 2, 1776.

E585 De effectu frictionis in motu volutorio. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1781: II, printed 1785, p. 131-175 + 4 figures. According to the records, it was presented to the St. Petersburg Academy on April 3, 1775.

E586 Considerationes super theoremate Fermatiano de resolutione numerorum in numeros polygonales.

Opuscula analytica 2, 1785, p. 3-15. According to the records, it was presented to the St. Petersburg Academy on December 12, 1774.
Reprinted in *Commentat. arithm*. 2, 1849, p. 92-98 [**E586a**].

E587 Observationes in aliquot theoremata illustr. de la Grange.

About $\int_0^1 \frac{x^n - x^m}{\log x} \cdot \frac{dx}{x}$ and certain similar integrals.
Opuscula analytica 2, 1785, p. 16-41 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on March 13, 1775.

E588 Investigatio formulae integralis $\int \frac{x^{m-1}dx}{(1+x^k)^n}$ casu quo post intagrationem statuitur $x = \infty$.

Opuscula analytica 2, 1785, p. 42-54. According to the records, it was presented to the St. Petersburg Academy on March 2, 1775.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 346-357 [**E588a**], ed. tertia, 4, 1845, p. 346-357 [**E588b**].

E588A Translated into German: Bestimmung der Integralformel $\int \frac{x^{m-1}dx}{(1+x^k)^n}$ in dem Falle, wo nach der Integration $x = \infty$ gesetzt wird.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 328-340. Translated by J. Salomon.

E589 Investigatio valoris integralis $\int \frac{x^{m-1}dx}{1-2x^k\cos.\theta + x^{2k}}$ a termino $x = 0$ usque ad $x = \infty$ extensi.

Opuscula analytica 2, 1785, p. 55-75. According to the records, it was presented to the St. Petersburg Academy on March 2, 1775.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 358-378 [**E589a**], ed. tertia, 4, 1845, p. 358-378 [**E589b**].

E589A Translated into German: Auffindung des Werthes des Integrales $\int \frac{x^{m-1}dx}{1-2x^k\cos\theta + x^{2k}}$ von der Gränze $x = 0$ bis $x = \infty$ ausgedehnt.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 340-359. Translated by J. Salomon.

E590 Theoremata quaedam analytica quorum demonstratio adhuc desideratur.

The three theorems are: I. Omnes plane quantitates imaginariae, quaecunque in calculo analytico occurrere possunt, ad hanc formam simplicissimam $a + b\sqrt{-1}$ ita revocari possunt, ut litterae *a* et *b* quantitates reales denotent. II. Praeter circulum nulla datur curva algebraica, cujus singuli arcus per arcus circulares simpliciter exprimi queant. III. Nulla prorsus datur curva algebraica, cujus singuli arcus simpliciter per logarithmos exprimi queant.
Opuscula analytica 2, 1785, p. 76-90 + 9 figures. According to the records, it was presented to the St. Petersburg Academy on May 1, 1775.

E591 De relatione inter ternas pluresve quantitates instituenda.

It deals with determining whether or not three given numbers can satisfy a linear equation with small coefficients.

Opuscula analytica 2, 1785, p. 91-101. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 99-104 [**E591a**].

E592 De resolutione fractionum transcendentium in infinitas fractiones simplices.

Opuscula analytica 2, 1785, p. 102-137. According to the records, it was presented to the St. Petersburg Academy on August 14, 1775. The title reads "De relatione," which is obviously a printing error; the table of contents correctly has "De resolutione."

E593 De transformatione serierum in fractiones continuas; ubi simul haec theoria non mediocriter amplificatur.

Opuscula analytica 2, 1785, p. 138-177. According to the records, it was presented to the St. Petersburg Academy on September 18, 1775.

E594 Methodus inveniendi formulas integrales, quae certis casibus datam inter se teneant rationem, ubi simul methodus traditur fractiones continuas summandi.

Special functional equations will be solved using certain integrals. As an application, the worth of certain continued fractions will be ascertained.
Opuscula analytica 2, 1785, p. 178-216. According to the records, it was presented to the St. Petersburg Academy on September 18, 1775.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 378-415 [**E594a**], ed. tertia, 4, 1845, p. 378-415 [**E594b**].

E594A Translated into German: Methode, Integralformeln aufzufinden, welche in bestimmten Fällen unter sich ein gegebenes Verhältniss haben.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 359-392. Translated by J. Salomon.

E595 Summatio fractionis continuae, cujus indices progressionem arithmeticam constituunt, dum numeratores omnes sunt unitates; ubi simul resolutio aequationis Riccatianae per hujusmodi fractiones docetur.

Opuscula analytica 2, 1785, p. 217-239. According to the records, it was presented to the St. Petersburg Academy on September 18, 1775.

E596 De summa seriei ex numeris primis formatae
$\frac{1}{3}-\frac{1}{5}+\frac{1}{7}+\frac{1}{11}-\frac{1}{13}-\frac{1}{17}+\frac{1}{19}+\frac{1}{23}-\frac{1}{29}+\frac{1}{31}$ *etc.* ubi numeri primi formae $4n - 1$ habent signum positivum, formae autem $4n + 1$ signum negativum.

Opuscula analytica 2, 1785, p. 240-256. According to the records, it was presented to the St. Petersburg Academy on October 2, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 116-126 [**E596a**].

E597 De seriebus potestatum reciprocis methodo nova et facillima summandis.

The "new method" was already explained in 1742 (see 1743 E61).
Opuscula analytica 2, 1785, p. 257-274. According to the records, it was presented to the St. Petersburg Academy on October 2, 1775.

E598 De insigni promotione scientiae numerorum.

About the divisibility of numbers of the form $Bt^2 + Ctu + Du^2$.
Opuscula analytica 2, 1785, p. 275-314. According to the records, it was presented to the St. Petersburg Academy on October 26, 1775.
Reprinted in *Commentat. arithm*. 2, 1849, p. 140-158 [**E598a**].

E599 Solutio quaestionis ad calculum probabilitatis pertinentis. Quantum duo conjuges persolvere debeant, ut suis haeredibus post utriusque mortem certa argenti summa persolvatur.

Opuscula analytica 2, 1785, p. 315-330. According to the records, it was presented to the St. Petersburg Academy on June 10, 1776.

E600 Solutio quarundam quaestionum difficiliorum in calculo probabilium.

Several problems about lotteries.
Opuscula analytica 2, 1785, p. 331-346. According to the records, it was presented to the St. Petersburg Academy on October 8, 1781.

Also see 1768 and 1772 (E343A^2, 343C, 344A^2, 344C, 417A^2: Russian and Dutch translations of the "Lettres à une princesse d'Allemagne").

1786.

E601 De symptomatibus quatuor punctorum, in eodem plano sitorum. Auctore L. Eulero.

About the relations between the six straight lines connecting four given points.
Acta academiae scientiarum Petropolitanae, 1782: I, printed 1786, p. 3-18 + 4 figures.
According to the records, it was presented to the St. Petersburg Academy on March 16, 1775.
Extract printed in *Arch. der Math*. 26, 1856, p. 335-336 (Grunert) [**E601a**].

E602 Methodus facilis omnia symptomata linearum curvarum non in eodem plano sitarum investigandi. Auctore L. Eulero.

Derivation of important theorems on the theory of curves in space (for example, on the angle of elevation of the tangents and the radius of curvature, as well as the equation of the bending plane) defines the spherical trigonomety. *Acta academiae scientiarum Petropolitanae*, 1782: I, printed 1786, p. 19-36 + 7 figures [dissertatio prior], 37-57 + 6 figures [dissertatio altera]. According to the records, it was presented to the St. Petersburg Academy on May 28, 1775.

E603 De descensu baculi super hypomochlio cylindro fixo delabentis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: I, printed 1786, p. 117-156 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on March 27, 1775.

E604 De trajectoriis reciprocis tam rectangulis quam obliquangulis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: II, printed 1786, p. 3-33 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on June 12, 1775.

E605 De miris proprietatibus curvae elasticae sub aequatione $y = \int \frac{xxdx}{\sqrt{(1-x^4)}}$ contentae.

Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: II, printed 1786, p. 34-61 + 1 diagram. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775.

E606 Speculationes super formula integrali $\int \frac{x^n dx}{\sqrt{(aa-2bx+cxx)}}$, ubi simul egregiae observationes circa fractiones continuas occurrunt. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: II, printed 1786, p. 62-84. According to the records, it was presented to the St. Petersburg Academy on September 4, 1775.

A part reprinted under the title: De integratione formulae irrationalis $\int \frac{x^n dx}{\sqrt{(aa-2bx+cxx)}}$;

Institutiones calculi integralis 4, 1794, p. 31-36 [**E606a**], ed. tertia, 4, 1845, p.31-36 [**E606b**].

E606A Translated into German: Von der Integration des irrationalen Ausdruckes $\int \frac{x^n dx}{\sqrt{a^2 - 2bx + cx^2}}$.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 31-36. Translated by J. Salomon.

E607 De motu globi circa axem obliquum quemcunque gyrantis et super plano horizontali incedentis. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: II, printed 1786, p. 107-147 + 5 figures. According to the records, it was presented to the St. Petersburg Academy on April 20, 1775. Reprinted in *Theoria motus corporum solidorum et rigidorum*, ed. nova, 1790, p. 593-624 [**E607a**].

E607A Translated into German: Von der Bewegung einer Kugel, deren Mittelpunkt der Trägheit in ihrem eigenen Mittelpunkte liegt, über einer horizontalen Ebene.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 676-712. Translated by J. Ph. Wolfers.

E608 Accuratior evolutio formularum pro filorum flexibilium aequilibrio et motu inventarum. Auctore L. Eulero.

Acta academiae scientiarum Petropolitanae, 1782: II, printed 1786, p. 148-169 + 1 figure. According to the records, it was presented to the St. Petersburg Academy on May 22, 1775.

Also see 1748 (E101A: French translation of "Introductio in analysin infinitorum"), 1768 and 1772 (E343D, 417C: Swedish and Dutch translations of the "Lettres à une princesse d'Allemagne").

1787.

E609 Considerationes super trajectoriis tam rectangulis quam obliquangulis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 1, (1783), 1787, p. 3-46 + 1 diagram. Page 3 reads: "Convent. exhib. d. 3. Jul. 1775".
Abstract: *A. a. O., Histoire*, p. 221-224.
Translation of the abstract: Академическія сочиненія (*Academic Work*) 1, 1801, p. 3-7 [**609a**].

E610 Novae demonstrationes circa divisores numerorum formae $xx + nyy$. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 1, (1783), 1787, p. 47-74. Page 47 reads: "Convent. exhib. d. 20 Novembr. 1775".
Abstract: *A. a. O., Histoire*, p. 224-226.
Translation of abstract: Академическія сочиненія 1, 18011, p. 7-10 [**E610a**].
Reprinted in *Commentat. arithm*. 2, 1849, p. 159-173 [**E610b**].

E611 Investigatio curvarum, quae similes sint suis evolutis vel primis, vel secundis, vel tertiis, vel adeo ordinis cujuscunque. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 1, (1783), 1787, p. 75-116 + 2 diagrams. Page 75 reads: "Convent. exhib. d. 11. Dec. 1775".
Abstract: *A. a. O., Histoire*, p. 226-228.
Translation of abstract: Академическія сочиненія 1, 18011, p. 10-13 [**E611a**].

E612 De motu globi heterogenei super plano horizontali, una cum dilucidationibus necessariis super motu vacillatorio. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 1, (1783), 1787, p. 119-139 + 2 figures. Page 119 reads: "Convent. exhib. d. 20 Aprilis 1775".
Abstract: *A. a. O., Histoire*, p.229-232.
Translation of abstract: Академическія сочиненія 1, 18011, p. 15-20 [**E612a**].
Reprinted in *Theoria motus corporum solidorum*, ed. nova, 1790, p. 568-584 [**E612b**].

E612A Translated into German: Von der Bewegung einer ungleichtartigen Kugel über einer horizontalen Ebene und den nothwendigen Erläuterungen zur schwankenden Bewegung.

Leonhard Eulers Theorie der Bewegung fester und starrer Körper, 1853, p. 713-732. Translated by J. Ph. Wolfers.

E613 Dilucidationes in capita postrema calculi mei differentalis de functionibus inexplicabilibus.

Institutiones calculi differentialis, Ticini [= Pavia] 1787, p. 705-732. Pages 729-732 contain: "Supplementum de functionibus inexplicabilibus formae $\pi : x = A \cdot B \cdot C \cdot D \cdot E \cdots X$."
Reprinted in *Mém. de l'acad. d. sc. de St.-Pétersbourg* 4, 1813, p. 88-119 + 1 figure; the "Supplementum" is found on p. 116-119 [**E613a**]. Page 88 reads: "Conventui exhib. die 13 Martii 1780."

E613A Translated into German: Beleuchtungen der letztern Kapitel meiner Differenzialrechnung.

J. Ph. Grüson, *Supplement zu L Eulers Differentialrechnung*, Berlin 1798, p. 1-35; the "Supplement" is found on p. 31-35.

Also see 1747 (E92A^2: Italian translation of "Rettung der göttlichen Offenbahrung"), 1755 (E212^2: new edition of "Institutiones calculi differentialis"), 1768 and 1772 (E343^4, 343E, 344D, 344E, 417D, 417E: new editions as well as Italian and Swedish translations of the "Lettres à une princesse d'Allemagne"), 1770 (E387A^2: Russian translation of "Algebra").

1788.

E614 Commentatio de curvis tractoriis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 3-27 + 6 figures. Page 3 reads: “Convent. exhib. d. 19. Jun. 1775”.
Abstract: *A. a. O., Histoire*, p. 55-58.

E615 De curvis tractoriis compositis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 28-35 + 2 figures. Page 28 reads: “Convent. exhib. d. 14. Aug. 1775”.
Abstract: *A. a. O., Histoire*, p. 59-60.

E616 De transformatione seriei divergentis $1 - mx + m(m+n)x^2 - m(m+n)(m+2n)x^3 + m(m+n)(m+2n)(m+3n)x^4 + etc.$ in fractionem continuam. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 36-45; pages 43-45 contain an “Appendix de fractione continua Brouncheriana”. Page 36 reads: “Convent. exhib. d. 11 Jan. 1776”.
Abstract: *A. a. O., Histoire*, p. 60-62.

E617 De summatione serierum in quibus terminorum signa alternantur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 46-69. Page 46 reads: “Convent. exhib. d. 22 Febr. 1776”.
Abstract: *A. a. O., Histoire*, p. 62-64.

E618 Consideratio motus plane singularis, qui in filo perfecte flexili locum habere potest. Auctore L. Eulero.

About the motion of pliable strings which not only oscillate, but also possess another motion.
Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 103-120 + 2 figures. Page 103 reads: “Convent. exhib. d. 5. Jun. 1775”.
Abstract: *A. a. O., Histoire*, p. 72-74.

E619 Enodatio difficultatis super figura terrae a vi centrifuga oriunda. Auctore L. Eulero.

Euler concludes from the shape of the earth that there must be a third force outside of the gravitational and centrifugal forces, and tries to determine the magnitude of it.
Nova acta academiae scientiarum Petropolitanae 2, (1784), 1788, p. 121-130 + 1 figure. Page 121 reads: “Convent. exhib. d. 2 Novembr. 1775”.
Abstract: *A. a. O., Histoire*, p. 74-76.

E620 Methodus facilis inveniendi integrali hujus formulae $\int \frac{dx}{x} \cdot \frac{x^{n+p} - 2x^n \cos\zeta + x^{n-p}}{x^{2n} - 2x^n \cos\theta + 1}$, casu quo post integrationem ponitur vel $x = 1$ vel $x = \infty$. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 3-24. Page 3 reads: "Convent. exhib. d. 18 Mart. 1776".
Abstract: *A. a. O., Histoire*, p. 161-164.

E621 De summo usu calculi imaginariorum in analysi. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 25-46. Page 25 reads: "Convent. exhib. d. 18 Mart. 1776".
Abstract: *A. a. O., Histoire*, p. 164-167.

E622 Specimen singulare analyseos infinitorum indeterminatae. Auctore L. Eulero.

To find a relation between z and q, so that $\int qdz$ is algebraic and $\int \frac{\sqrt{q^2-1}}{z}dz$ is an arc-function.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 47-56. Page 47 reads: "Convent. exhib. d. 18 Mart. 1776".
Abstract: *A. a. O., Histoire*, p. 168-170.

E623 De lineis rectificabilibus in superficie sphaeroidica quacunque geometrice ducendis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 57-68 + 4 figures. Page 57 reads: "Convent. exhib. d. 4. Jul. 1776".
Abstract: *A. a. O., Histoire*, p. 171-173.

E624 De superficie coni scaleni, ubi imprimis intentes difficultates, quae in hac investigatione occurrunt, perpenduntur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 69-89 + 4 figures. Page 69 reads: "Convent. exhib. d. 12 Septembr. 1776".
Abstract: *A. a. O., Histoire*, p. 173-175.

E625 De viribus centripetis, ad curvas non in eodem plano sitas describendas, requisitis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 111-125 + 2 figures. According to the records, it was presented to the St. Petersburg Academy on February 8, 1776.
Abstract: *A. a. O., Histoire*, p. 179-180.

E626 De motu trium corporum se mutuo attrahentium super eadem linea recta. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 126-141 + 1 figure. Page 126 reads: "Convent. exhib. d. 12 Decemb. 1776".

Abstract: *A. a. O., Histoire*, p. 180-182.

E627 Solutio problematis mechanici. Auctore L. Eulero.

About the motion on a horizontal plane of two cylinders which are joined by a string, which one of them gets a push from.
Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 142-148 + 1 figure. Page 142 reads: "Convent. exhib. d. 13 Mart. 1779"; according to the records it was presented to the St. petersburg Academy on May 13, 1779.
Abstract: *A. a. O., Histoire*, p. 182.

E628 Éclaircissemens sur le mémoire de Mr. de la Grange, inséré dans le V.^{e} volume de Mélanges de Turin, concernant la méthode de prendre le milieu entre les résultats de plusieurs observations, &c. Par M. L. Euler.

Nova acta academiae scientiarum Petropolitanae 3, (1785), 1788, p. 289-297. Page 289 reads: "Présenté à l'academie le 27 Nov. 1777".
Abstract: A. a. O., Histoire, p. 196-197.

Also see 1748 (E101B, 102B: German translation of "Introductio in analysin infinitorum"), 1768 (E344^{4}: new edition of the "Lettres à une princesse d'Allemagne"), 1770 (E388A^{2}: Russian translation of "Algebra").

1789.

E629 Evolutio formulae integralis $\int dx\left(\frac{1}{1-x}+\frac{1}{lx}\right)$ a termino $x = 0$ usque ad $x = 1$ extensae.

Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 3-16 + 1 figure. Page 3 reads: "Convent. exhib. d. 29 Febr. 1776".
Abstract: *A. a. O., Histoire*, p. 109-110.

E630 Uberior explicatio methodi singularis nuper expositae, integralia alias maxime abscondita investigandi. Auctore L. Eulero.

About repeated partial differentiation and integration of functions of two variables. Application in determining the worth of certain intgrals.
Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 17-54. Page 17 reads: "Convent. exhib. d. 29 Febr. 1776".
Abstract: *A. a. O., Histoire*, p. 110-111.

E631 Analysis facilis et plana ad eas series maxime abstrusas perducens, quibus omnium aequationum algebraicarum non solum radices ipsae, sed etiam quaevis earum potestates exprimi possunt. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 55-73. Page 55 reads: "Convent. exhib. d. 15 Apr. 1776".
Abstract: *A. a. O., Histoire*, p. 112-114.

E632 De innumeris generibus serierum maxime memorabilium, quibus omnium aequationum algebraicarum non solum radices ipsae, sed etiam quaecunque earum potestates exprimi possunt. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 74-95. Page 74 reads: "Convent. exhib. d. 11 April. 1776".
Abstract: *A. a. O., Histoire*, p. 114-115.

E633 De binis curvis algebraicis inveniendis, quarum arcus indefinite inter se sint aequales. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 96-103 + 3 figures. Page 96 reads: "Convent. exhib. d. 20 Jun. 1776".
Abstract: *A. a. O., Histoire*, p. 116-117.

E634 De motu oscillatorio tabulae suspensae et a vento agitatae. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 4, (1786), 1789, p. 131-147 + 6 figures. Page 131 reads: "Convent. exhib. die 13 Nov. 1775".
Abstract: *A. a. O., Histoire*, p. 120-121.

E635 Innumera theoremata circa formulas integrales quorum demonstratio vires analyseos superare videatur. Auctore L. Eulero.

About certain integrals of the form $\int_0^\infty \frac{dx}{x} \cdot \frac{x^p}{x^n + 2\cos\theta + x^{-n}}$ and similar integrals.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 3-26. Page 3 reads: "Convent. exhib. die 18 Mart. 1776".
Abstract: *A. a. O., Histoire*, p. 61-62.

E636 De multiplicatione angulorum per factores expedienda. Auctore L. Eulero.

Sin $n\varphi$ and cos $n\varphi$ will be broken down into factors of a given form.
Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 27-51. Page 27 reads: "Convent. exhib. die 15 April. 1776".
Abstract: *A. a. O., Histoire*, p. 62-63.

E637 Nova demonstratio quod evolutio potestatum binomii Newtoniana etiam pro exponentibus fractis valeat. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 52-58. Page 52 reads: "Convent. exhib. die 20 Maii. 1776".
Abstract: *A. a. O., Histoire*, p. 64-65.

E638 De innumeris curvis algebraicis, quarum longitudinem per arcus parabolicos metiri licet. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 59-70. Page 59 reads: "Convent. exhib. die 3 Junii 1776".
Abstract: *A. a. O., Histoire*, p. 65-67.

E639 De innumeris curvis algebraicis, quarum longitudinem per arcus ellipticos metiri licet. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 71-85. Page 71 reads: "Convent. exhib. die 10 Junii 1776".
Abstract: *A. a. O., Histoire*, p. 67-69.

E640 Comparatio valorum formulae integralis $\int \frac{x^{p-1}dx}{\sqrt[n]{(1-x^n)^{n-q}}}$, a termino $x = 0$ usque ad $x = 1$ extensae. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 86-117, 118-129 [Additamentum]. Page 118 reads: "Convent. exhib. die 10 Octobr. 1776"; Page 118 reads: "Convent. exhib. die 17 Octob. 1776".
Abstract: *A. a. O., Histoire*, p. 69-73.
Reprinted in *Institutiones calculi integralis* 4, 1794, p. 295-326, 326-337 [**E640a**], ed. tertia, 4, 1845, p. 295-326, 326-337 [**E640b**].

E640A Translated into German: Vergleichung der Werthe des Integralausdruckes $\int \frac{x^{p-1}dx}{\sqrt[n]{(1-x^n)^{n-q}}}$ von der Gränze $x = 0$ bis $x = \infty$ ausgedehnt.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 282-309, 309-320 [Zusatz]. Translated by J. Salomon.

E641 De motu quodam maxime memorabili, satis quidem simplici, at solutu difficillimo. Auctore L. Eulero.

About the motion of a cylinder with a string wound around it, on a horizontal plane.

Nova acta academiae scientiarum Petropolitanae 5, (1787), 1789, p. 149-175 + 1 diagram. Page 149 reads: "Convent. exhib. die 8 Avril (!) 1779".
Abstract: *A. a. O., Histoire*, p. 74-75.

Also see 1770 (E387[6], 388[6]: new edition of "Algebra"), 1772 (E417[4]: new edition of the "Lettres à une princesse d'Allemagne).

1790.

E642 De singulari ratione differentiandi & integrandi quae in summis serierum occurrit. Auctore L. Eulero.

About the differentiation and integration of infinite series.
Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 3-15. Page 3 reads: "Convent. exhib. die 18 Mart. 1776".
Abstract: *A. a. O., Histoire*, p. 79-80.

E643 Methodus generalis investigandi radices omnium aequationum per approximationem. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 16-24. Page 16 reads: "Convent. exhib. die 25 April. 1776".
Abstract: *A. a. O., Histoire*, p. 80-81.

E644 Innumerae aequationum formae, ex omnibus ordinibus, quarum resolutio exhiberi potest. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 25-35. Page 25 reads: "Convent. exhib. d. 6 Maii 1776".
Abstract: *A. a. O., Histoire*, p. 82-84.

E645 De curvis algebraicis, quarum longitudo exprimitur hac formula integrali $\int \frac{v^{m-1}dv}{\sqrt{(1-v^{2n})}}$.

Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 36-62. Page 36 reads: "Convent. exhib. d. 17 Jun. 1776".
Abstract: *A. a. O., Histoire*, p. 84-85.

E646 De duabus pluribusve curvis algebraicis, in quibus, si a terminis fixis aequales arcus abscindantur, eorum amplitudines datam inter se teneant rationem. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 63-76 + 4 figures. Page 63 reads: "Convent. exhib. d. 19 Aug. 1776".

Abstract: *A. a. O., Histoire*, p. 85-86.

E647 De methodo tangentium inversa ad theoriam solidorum translata. Auctore L. Eulero.

Solutions to simple problems which deal with first-order partial differential equations.
Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 77-94 + 1 diagram. Page 77 reads: "Convent. exhib. d. 2 Sept. 1776".
Abstract: *A. a. O., Histoire*, p. 86-89.

E648 Solutio facilis problematis, quo quaeritur circulus, qui datos tres circulos tangat. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 95-101 + 2 figures. Page 95 reads: "Convent. exhib. d. 4 Novembr. 1779".
Abstract: *A. a. O., Histoire*, p. 89.

E648A Translated into Russian: Рѣшенїе вопроса о сысканїи круга, который бы къ даннымъ тремъ кругамъ касался.

Умозрительныя изслѣдованія императорской Санктпетербургской академіи наукъ 4, 1815, p. 3-9 + 2 figures. According to Bobynin's Russian physicist/mathematician bibliography 3:3 (1900), p. 158-159.

E649 De motu oscillatorio penduli circa axem cylindricum plano horizontali incumbentem. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 6, (1788), 1790, p. 145-153 + 1 figure. Page 145 reads: "Convent. exhib. d. 14 Aug. 1780".
Abstract: *A. a. O., Histoire*, p.93-94.

Also see 1755 (E212A: German translation of "Institutiones calculi differentialis"), 1765 (E289^2: new edition of "Theoria motus corporum solidorum seu rigidorum"), 1768 (E343A^3: Russian translation of the"Lettres à une princesse d'Allemagne"), 1770 (E387D, 388D: Latin translation of "Algebra"), 1773 (E426A: English translation of "Théorie complette de la constuction et de la manœuvre des vaisseaux"), 1776 (E478a, 479a), 1784 (E568a, 569a), 1786 (E607a), 1787 (E612b).

1791.

See 1738 (E30A), 1764 (E282A), 1768 and 1772 (E344A^3, 417A^3: Russian translation of the "Lettres à une princesse d'Allemagne").

1792.[10]

See 1768 and 1769 (E342[2] and 366[2]: New edition of "Institutiones calculi integralis"), 1768 (E343B[4], 343F, 344F: German and Danish translations of the"Lettres à une princesse d'Allemagne").

1793.

E650 De formulis differentialibus, quae per duas pluresve quantitates datas multiplicatae fiant integrabiles. Auctore L. Euler (!).

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 3-21 + 1 figure. Page 3 reads: "Convent. exhib. die 1 Jul. 1776".
Abstract: *A. a. O., Histoire*, p. 35-36.

E651 Quatuor theoremata maxime notatu digna in calculo integrali. Auctore L. Eulero.

About integrals of the form $\int (\sin\varphi)^{n-1} \sin(n+k)\varphi \cdot d\varphi$ and similar integrals.
Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 22-41. Page 22 reads: "Convent. exhib. die 1 Jul. 1776".
Abstract: *A. a. O., Histoire*, p. 37-38.

E652 De termino generali serierum hypergeometricarum. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 42-63. Page 42 reads: "Convent. exhib. die 19 Aug. 1776".
Abstract: *A. a. O., Histoire*, p. 38-39.

E653 De iterata integratione formularum integralium dum aliquis exponens pro variabili assumitur. Auctore L. Eulero.

About double integration.
Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 64-82. Page 64 reads: "Convent. exhib. die 19 Aug. 1776".
Abstract*: A. a. O., Histoire*, p. 40.

E654 Methodus facilis investigandi radium osculi ex principio maximorum et minimorum petita. Auctore L. Eulero.

[10] In 1792, a book with the title: L'arithmétique raisonnée et démontrée, œuvres posthumes de Léonard Euler, traduite en françois par Daniel Bernoulli, directeur de l'observatoire de Berlin &c. &c. Broché, 5 livres. Berlin, chez Voss & fils, et Decker & fils 1792 (8^0, (4) + 616 pages). One can presume, because of the incorrect statements of the titles, that a literary fraud was perpetrated here, and this circumstance also caused P.H. Fuss to regard the work as one which did not come from Euler. I carried out a comparison of this book with Euler's "Rechen-Kunst," and it confirmed the correctness of the presumption throughout; the two works are not drawn up according to the same plan. "L'arithmétique raisonnée" was most probably written by C. F. Gaignat de l'Aulnays, as G. Valentin. has demonstrated in *Bibl. math.* 1898, p. 49.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 83-86 + 1 figure. Page 83 reads: “Convent. exhib. die 11 Sept. 1776”; according to the records, it was presented to the St. Petersburg Academy on September 12, 1776.
Abstract: *A. a. O., Histoire*, p. 40-41.

E655 Observationes generales circa series, quarum termini secundum sinus vel cosinus angulorum multiplorum progrediuntur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 87-98. Page 87 reads: “Convent. exhib. die 6 Mart. 1776”(!); according to the records, it was presented to the St. Petersburg Academy on March 6, 1777.
Abstract: *A. a. O., Histoire*, p. 41-42.

E656 De integrationibus maxime memorabilibus ex calculo imaginariorum oriundis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 99-133. Page 99 reads: “Convent. exhib. d. 20 Mart. 1777”.
Abstract: *A. a. O., Histoire*, p. 42-43.

E657 Supplementum ad dissertationem praecedentem, circa integrationem formulae $\int \frac{z^{m-1}dz}{1-z^n}$, casu quo ponitur $z = v(\cos.\varphi + \sqrt{-1}\cdot\sin.\varphi)$.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 134-148. The presentation date is unkown, possibly March 20, 1777 (see the previous treatise).
Abstract: *A. a. O., Histoire*, p. 43-44.

E658 De momentis virium respectu axis cujuscunque inveniendis; ubi plura insignia symptomata circa binas rectas, non in eodem plano sitas, explicantur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 191-204 + 1 diagram. Page 191 reads: “Convent. exhib. d. 14 Aug. 1780”.
Abstract: *A. a. O., Histoire*, p. 47-48.

E659 Methodus facilis omnium virium momenta respectu axis cujuscunque determinandi. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 7, (1789), 1793, p. 205-214 + 5 figures. Page 205 reads: “Convent. exhib. d. 14 Aug. 1780”.
Abstract: *A. a. O., Histoire*, p. 48.

Also see 1755 (E212A: German translation of "Institutiones calculi differentialis"), 1768 and 1772 (E343D^2, 344B^4, 417F: German, Swedish and Danish translations of the "Lettres à une princesse d'Allemagne"), 1770 (E385^2: new edition of "Institutiones calculi integralis").

1794.

E660 Leonhardi Euleri Institutionum calculi integralis volumen quartum, continens supplementa partim inedita partim jam in operibus academiae imperialis scientiarum Petropolitanae impressa. Petropli impensis academiae imperialis scientiarum 1794.

Kgl. Library in Berlin.
Example used: Lib. of the Stockholm Sci. Acad.
4^0, VII + (1) + 620 pages + 3 diagrams. The 28 treatises of this volume are E391a, 420a, 421a, 463a, 464a, 499a, 506a, 539a, 581a, 588a, 589a, 594a, 606a, 640a, 668-681. Also see 1768 (E342), 1769 (E366), 1770 (E385).

E660^2 Leonhardi Euleri Institutionum calculi integralis volumen quartum continens supplementa partim inedita partim jam in operibus academiae imperialis scientiarum Petropolitanae impressa. Editio tertia. Petropoli, impensis acadmiae imperialis scientiarum 1845.

Example used: G. E.
4^0, (2) + 620 pages + 3 diagrams. The 28 treatises of this volume are E391b, 420b, 421b, 463b, 464b, 499b, 506b, 539b, 581b, 588b, 589b, 594b, 606b, 640b, 668a-681a. There are examples, which contain a new printing of pages 1-160, 481-620. The back side of the title page of this example reads: "Primarum centium sexaginta et extremarum centum quadraginta paginarum haec quarta est editio, in qua praegressae editionis errores, quotquot animadversi erant, correcti sunt." The new printing is from the year 1891.
Also see 1768 (E342^3), 1769 (E366^3), 1770 (E385^3).

E660A Translated into German: Leonhard Euler's vollständige Anleitung zur Integralrechnung. Aus dem Lateinischen ins Deutsch übersetzt von Joseph Salomon, k. k. Professor. Vierter Band, welcher die Supplemente enthält, die theils noch nicht öffentlich bekannt gemacht, theils in den Werken der kaiserlichen Akademie der Wissenschaften zu Petersburg abgedruckt worden sind. Wien, Carl Gerold 1830.

Kgl. Library in Berlin.
Example used: G. E.
8^0, VIII + 580 pages + 2 diagrams. The 28 treatises of this volume are E391A, 420A, 421A, 463A, 464A, 499A, 506A, 539A, 581A, 588A, 589A, 594A, 606A, 640A, 668A-681A. Also see 1768 (E342A), 1769 (E366A), 1770 (E385A).

E661 Variae considerationes circa series hypergeometricas. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 3-14. Page 3 reads: "Convent. exhib. die 19 Aug. 1776".
Abstract: *A. a. O., Histoire*, p. 47-48.

E662 De vero valore formulae integralis $\int dx \left(l \frac{1}{x} \right)^n$ a termino $x = 0$ usque ad terminum $x = 1$ extensae. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 15-31. Page 15 reads: "Convent. exhib. die 30 Sept. 1776".
Abstract: *A. a. O., Histoire*, p. 48-50.

E663 Plenior expositio serierum illarum memorabilium, quae ex unciis potestatum binomii formantur. Auctore L. Eulero.

About properties of the binomial coefficients.
Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 32-68. Page 32 reads: "Convent. exhib. die 30 Sept. 1776".
Abstract: *A. a. O., Histoire*, p. 50-53.

E664 Exercitatio analytica. Auctore L. Eulero.

About an infinite product whose value is cos $\pi/2n$.
Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 69-72. Page 69 reads: "Convent. exhib. die 3 Octobr. 1776".
Abstract: *A. a. O., Histoire*, p. 53.

E665 Evolutio problematis cujus solutio analytica est difficillima, dum synthetica per se est obvia. Auctore L. Eulero.

To define a curve so that for every point, the distance from center point of the curvature to a given point is constant.
Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 73-86 + 7 figures. Page 73 reads: "Convent. exhib. die 16 Jan. 1777".
Abstract: *A. a. O., Histoire*, p. 54-55.

E666 Problema geometricum ob singularia symptomata imprimis memorabile. Auctore L. Eulero.

To define a curve so that every sector with a given starting point is proportional to the quadrature of that arc.
Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 87-115 + 3 figures. Page 87 reads: "Convent. exhib. die 10 Febr. 1777".
Abstract: *A. a. O., Histoire*, p. 55-57.

E667 De curvis hyperbolicis quae intra suas assymtotas spatium finitum includunt. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 8, (1790), 1794, p. 116-139 + 2 figures. Page 116 reads: "Convent. exhib. die 13 Febr. 1777".
Abstract: *A. a. O., Histoire*, p. 57-58.

E668 De integratione formulae $\int \frac{dx\sqrt{(1+x^4)}}{1-x^4}$, aliarumque ejusdem generis, per logarithmos et arcus circulares.

Institutiones calculi integralis 4, 1794, p. 36-48. Page 36 reads: "M.S. Academiae exhib. die 16 Sept. 1776".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 36-48 [**E668a**].

E668A Translated into German: Von der Integration der Formel $\int \frac{dx\sqrt{1+x^4}}{1-x^4}$ und anderer dieser Art durch Logarithmen und Kreisbogen.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 36-47. Translated by J. Salomon.

E669 Memorabile genus formularum differentialium maxime irrationalium, quas tamen ad rationalitatem perducere licet.

About $\int \frac{dx}{(a+bx^n)^2\sqrt[n]{a+2bx^n}}$ and related integrals.
Institutiones calculi integralis 4, 1794, p. 48-59. Page 48 reads: "M.S. Academiae exhib. d. 15 Maii 1777".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 48-59 [**E669a**].

E669A Translated into German: Merkwürdige Gattung von Differenzialformeln, die durchaus irrational sind, welche sich aber dennoch rational darstellen lassen.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 47-56. Translated by J. Salomon.

E670 De resolutione formulae integralis $\int x^{m-1}dx(\Delta+x^n)^\lambda$ in seriem semper convergentem. Ubi simul plura insignia artificia circa serierum summationem explicantur.

Institutiones calculi integralis 4, 1794, p. 60-77. Page 60 reads: "M.S. Academiae exhib. die 12 Aug. 1779".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 60-77 [**E670a**].

E670A Translated into German: Von der Auflösung der Integralformel $\int x^{m-1}dx(\Delta+x^n)^\lambda$ in eine Reihe, welche immer convergiert. Hier werden zugleich mehrere schöne Kunstgriffe, rücksichtlich der Summation der Reihen auseinandergesetzt.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 57-74. Translated by J. Salomon.

E671 De formulis differentialibus angularibus maxime irrationalibus, quas tamen per logarithmos et arcus circulares integrare licet.

Institutiones calculi integralis 4, 1794, p. 183-194. Page 183 reads: "M.S. Academiae exhib. die 5 Maii 1777".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 183-194 [**E671a**].

E671A Translated into German: Von den Differenzialformeln, welche Kreisbogen enthalten, und ganz irrational sind, welche man aber dennoch mittelst Logarithmen und Kreisbogen integriren kann.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 177-186. Translated by J. Salomon.

E672 Theorema maxime memorabile circa formulam integralem $\int \frac{d\varphi \cos .\lambda\varphi}{(1+aa-2a\cos .\varphi)^{n+1}}$.

Institutiones calculi integralis 4, 1794, p. 194-217. Page 194 reads: "M.S. Academiae exhib. die 13 Augusti 1778".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 194-217 [**E672a**].

E672A Translated into German: Höchst merkwürdiges Theorem rücksichtlich des Integralausdruckes $\int \frac{d\varphi \cos .\lambda\varphi}{(1+a^2-2a\cos .\varphi)^{n+1}}$.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 187-208. Translated by J. Salomon.

E673 Disquitio conjecturalis super formula integrali $\int \frac{d\varphi \cos .i\varphi}{(\alpha+\beta\cos .\varphi)^n}$.

Institutiones calculi integralis 4, 1794, p. 217-242. Page 217 reads: "M.S. Academiae exhib. die 31. Augusti 1778".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p.217-242 [**E673a**].

E673A Translated into German: Untersuchung, betreffend den Integralausdruck $\int \frac{d\varphi \cos .i\varphi}{(\alpha+\beta\cos .\varphi)^n}$.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 209-231. Translated by J. Salomon.

E674 Demonstratio theorematis insignis per conjecturam eruti, circa intagrationem formulae $\int \frac{d\varphi \cos .i\varphi}{(1+aa-2a\cos .\varphi)^{n+1}}$.

Institutiones calculi integralis 4, 1794, p. 242-259. Page 242 reads: "M.S. Academiae exhib. die 10 Septembris 1778".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 242-259 [**E674a**].

E674A Translated into German: Beweis eines schönen, durch ein glückliches Errathen erhaltenen Lehrsatzes, rücksichtlich der Integration des Ausdruckes $\int \frac{d\varphi \cos .i\varphi}{(1+a^2-2a\cos\varphi)^{n+1}}$.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 231-249. Translated by J. Salomon.

E675 De valoribus integralium a termino variabilis $x = 0$ usque ad $x = \infty$ extensorum.

Institutiones calculi integralis 4, 1794, p. 337-345. Page 337 reads: "M.S. Academiae exhib. d. 30 Aprilis 1781".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 337-345 [**E675a**].

E675A Translated into German: Von den Werthen der Integralien, von der Gränze der Veränderlichen $x = 0$ bis $x = \infty$ ausgedehnt.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 321-328. Translated by J. Salomon.

E676 Methodus succinctior comparationes quantitatum transcendentium in forma $\int \frac{Pdz}{\sqrt{A+2Bz+Czz+2Dz^3+Ez^4)}}$ contentarum inveniendi.

Institutiones calculi integralis 4, 1794, p. 504-524. Page 504 reads: "M.S. Academiae exhib. die 3 Nov. 1777".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 504-524 [**E676a**].

E676A Translated into German: Kürzere Methode, die Vergleichungen der in dem Ausdrucke $\int \frac{Pdz}{\sqrt{A+2Bz+Cz^2+2Dz^3+Ez^4)}}$ enthaltenen transcendenten Größen aufzufinden.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 476-493. Translated by J. Salomon.

E677 Methodus singularis resolvendi aequationes differentiales secundi gradus.

Special second-order linear differential equations.
Institutiones calculi integralis 4, 1794, p. 525-533. Page 525 reads: "M.S. Academiae exhib. d. 19 Jan. 1779"; according to the records, it was presented to the St. Petersburg Academy on January 21, 1779.
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 525-533 [**E677a**].

E677A Translated into German: Besondere Methode, die Differenzialgleichungen des zweyten Grades aufzulösen.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 494-501. Translated by J. Salomon.

E678 Methodus nova investigandi omnes casus, quibus hance aequationem differentialem $ddy(1-axx)-bxdxdy-cydx^2=0$ resolvere licet.

Institutiones calculi integralis 4, 1794, p. 533-543. Page 533 reads: "M.S. Academiae exhib. die 13 Januarii, 1780".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p.533-543 [**E678a**].

E678A Translated into German: Neue Methode, alle Fälle aufzufinden, in welchen die Differenzialgleichung des zweyten Grades $d^2y(1-ax^2)-bxdxdy-cydx^2=0$ die Auflösung gestattet.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 501-509. Translated by J. Salomon.

E679 De formulis integralibus implicatis, earumque evolutione et transformatione.

About multiple integrals.
Institutiones calculi integralis 4, 1794, p. 544-563. Page 544 reads: "M.S. Academiae exhib. die 20 Aprilis 1778".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 544-563 [**E679a**].

E679A Translated into German: Von den verwickelten Integralformeln, und ihrer Auflösung und Transformation.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 510-526. Translated by J. Salomon.

E680 De aequationibus differentialibus cujuscunque gradus, quae denuo differentiatae integrari possunt.

Institutiones calculi integralis 4, 1794, p. 564-577. Page 564 reads: "M.S. Academiae exhib. die 8 Octobris 1781".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 564-577 [**E680a**].

E680A Translated into German: Von den Differenzialgleichungen eines beliebigen Grades, welche nach abermahliger Differenziation integrirt werden können.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 527-538. Translated by J. Salomon.

E681 Specimen aequationum differentialium indefiniti gradus earumque integrationis.

Institutiones calculi integralis 4, 1794, p. 577-589. Page 577 reads: "M.S. Academiae exhib. die 13 Decembris, 1781".
Reprinted in *Institutiones calculi integralis*, ed. tertia, 4, 1845, p. 577-589 [**E681a**].

E681A Translated into German: Beyspiel von Differenzialgleichungen eines unbestimmten Grades und ihrer Integration.

Leonhard Eulers vollständige Anleitung zur Integralrechnung 4, 1830, p. 538-550. Translated by J. Salomon.

E682 Von dem Drucke eines mit einem Gewichte beschwerten Tisches auf eine Fläche. Aus den Papieren des sel. Leonhard Euler gozogen, von Jakob Bernoulli.

Archiv der reinen und angewandten Mathematik 1: 1, 1794, p. 74-80 + 5 figures. The first issue of the "Archiv" has publication year 1794, however the complete volume first appeared in 1795, so the title page of the volume carries this publication year. According to the footnote, it was collected by Johann Bernoulli III (Jakob Bernoulli II was already dead in 1789.)

Also see 1772 (E417B[4]: German translation of the "Lettres à une princesse d'Allemagne"); also the note for E660.

1795.

E683 De singulari genere quaestionum Diophantearum et methodo maxime recondita eas resolvendi. Auctore L. Eulero.

To find among the powers of the expression $a^2 + nb^2$, which all have the form $x^2 + ny^2$, the one where x or y has the smallest worth.
Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 3-18. Page 3 reads: "Conventui exhibit (!) die 13 Januar.1777 ".

Abstract: *A. a. O., Histoire*, p. 165.
Reprinted in *Commentat. arithm*. 2, 1849, p.174-182 [**E683a**].

E684 De radicibus aequationis infinitae

$0 = 1 - \frac{xx}{n(n+1)} + \frac{x^4}{n(n+1)(n+2)(n+3)} - \frac{x^6}{n\ldots(n+5)} + etc.$ Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 19-40. Page 19 reads: "Conventui exhibit (!) die 16 Januar. 1777 ".
Abstract: *A. a. O., Histoire*, p. 166-167.

E685 Exercitatio analytica; ubi imprimis seriei maxime generalis summatio traditur. Auctore L. Eulero.

About the series $\frac{a}{b} + \frac{a}{b}\cdot\frac{a+\theta}{b+\theta} + \frac{a}{b}\cdot\frac{a+\theta}{b+\theta}\cdot\frac{a+2\theta}{b+2\theta} + \cdots$
Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 41-53 + 1 figure. Page 41 reads: "Conventui exhib. die 13 Febr. 1777".
Abstract: *A. a. O., Histoire*, p. 167-168.

E686 Dilucidationes super formulis, quibus sinus et cosinus angulorum multiplorum exprimi solent, ubi simul ingentes difficultates diluuntur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 54-80. Page 54 reads: "Conventui exhib. die 6 Mart. 1777".
Abstract: *A. a. O., Histoire*, p. 168-170.

E687 De insignibus proprietatibus formularum integralium praeter binas variabiles etiam earum differentialia cujuscunque ordinis involventium. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 81-97. Page 81 reads: "Conventui exhibit. die 10 Mart. 1777".
Abstract: *A. a. O., Histoire*, p. 170-171.

E688 Specimen integrationis abstrusissimae hac formula $\int \frac{dx}{(1+x)\sqrt[4]{(2xx-1)}}$ contentae. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 98-117. Page 98 reads: "Conventui exhib. die 26 Mart. 1777"; according to the records, it was presented to the St. Petersburg Academy on March 31, 1777.
Abstract: *A. a. O., Histoire*, p. 171-173.

E689 Integratio formulae differentialis maxime irrationalis, quam tamen per logarithmos et arcus circulares expedire licet. Auctore L. Eulero.

About the integral $\int \frac{(1-z^2)^2\,dz}{(1+z^2)\sqrt[4]{(1+6z^2+z^4)^3}}$.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 118-126. Page 126 reads: "Conventui exhib. die 26 Mart. 1777"; according to the records, it was presented to the St. Petersburg Academy on March 31, 1777.
Abstract: *A. a. O., Histoire*, p. 173-174.

E690 Evolutio formulae integralis $\int \frac{dz(3+zz)}{(1+zz)\sqrt[4]{(1+6zz+z^4)}}$ per logarithmos et arcus circulares.

Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 127-131. Page 127 reads: "Conventui exhib. d. 26 Mart. 1777".
Abstract: *A. a. O., Histoire*, p. 174-175.

E691 Problema geometricum, quo inter omnes ellipses, quae per data quatuor puncta traduci possunt, ea quaeritur, quae habet aream minimam. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 132-145 + 6 figures. Page 122[11] reads: "Conventui exhib. die 4 Sept. 1777".
Abstract: *A. a. O., Histoire*, p. 175-176.

E692 Solutio problematis maxime curiosi, quo inter omnes ellipses, quae circa datum triangulum circumscribi possunt, ea quaeritur, cuius area sit omnium minima. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 146-153 + 4 figures. Page 146 reads: "Conventui exhibit. die 4 Sept. 1777".
Abstract: *A. a. O., Histoire*, p. 177-178.

E693 De centro similitudinis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 9, (1791), 1795, p. 154-165 + 2 diagrams. Page 154 reads: "Conventui exhib. die 23 Octob. 1777".
Abstract: *A. a. O., Histoire*, p. 178.

Also see 1768 and 1772 (E343G, 344D^2, 344G, 417G: Swedish and English translations of the "Lettres à une princesse d'Allemagne"), 1770 (E387C^2, 388C^2: French translation of "Algebra"); also 1794 (E682).

1796.

[11] This page number must be a mistake. –G.P.

See 1748 (E101a; 101A^2: French translation of "Introductio in analysin infinitorum"), 1768 and 1772 (E343A^4, 344A^4, 417A^4: Russian translation of the "Lettres à une princesse d'Allemagne"), 1770 (E387^3: new edition of "Algebra").

1797.

E694 Ulterior disquisitio de formulis integralibus imaginariis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 3-19. Page 3 reads: "Conventui exhib. die 21 Mart. 1777"; according to the records it was presented to the St. Petersburg Academy on March 31, 1777.
Abstract: *A. a. O., Histoire*, p. 215-217.

E695 Integratio succincta formulae integralis maxime memorabilis $\int \frac{dz}{(3 \pm zz)\sqrt[3]{(1 \pm 3zz)}}$.

Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 20-26. Page 20 reads: "Conventui exhib. die 28 April. 1777".
Abstract: *A. a. O., Histoire* p. 217-218.

E696 De casibus quibus hanc formulam $x^4 + kxxyy + y^4$ ad quadratum reducere licet. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 27-40. Page 27 reads: "Conventui exhib. die 28 April. 1777".
Abstract: *A. a. O., Histoire*, p. 219-220.
Reprinted in *Commentat. arithm.* 2, 1849, p. 183-189 [**E696a**].

E697 Investigatio superficierum quarum normales ad datum planum productae sint omnes inter se aequales. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 41-46 + 3 figures. Page 41 reads: "Conventui exhib. die 28 Decembr. 1777"; according to the records, it was presented to the St. Petersburg Academy on December 4, 1777.
Abstract: *A. a. O., Histoire*, p. 220.

E698 Variae speculationes super area triangulorum sphaericorum. Auctore L. Eulero.

Here, after other things, Euler gives a geometric proof of the Lexell Theorem about the location of the vertices of equally flat spherical triangles with a shared baseline.
Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 47-62 + 6 figures. Page 47 reads: "Conventui exhib. die 29 Januar. 1778".
Abstract: *A. a. O., Histoire*, p. 221-222.

E699 Utrum hic numerus: 1000009 sit primus, nec ne, inquiritur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 10, (1792), 1797, p. 63-73. Page 63 reads: "Conventui exhib. die 16 Mart. 1778".
Abstract: *A. a. O., Histoire*, p. 222-223.
Reprinted in *Commentat. arithm.* 2, 1849, p. 243-248 [**E699a**].

Also see 1748 (E101[2], 102[2], 102A: new edition and French translation of "Introductio in analysin infinitorum"), 1770 (E387E, 388[3], 388E: new edition and English translation of "Algebra"), 1772 (E417D[2]: Swedish translation of the "Lettres à une princesse d'Allemagne").

1798.

E700 De formulis differentialibus secundi gradus, quae integrationem admittunt. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 3-26. Page 3 reads: "Conventui exhib. die 24 April. 1777".
Abstract: *A. a. O., Histoire*, p. 159-161.

E701 Formae generales differentialium, quae etsi nulla substitutione rationales reddi possunt, tamen integrationem per logarithmos et arcus circulares admittunt. Auctore L. Eulero.

About the integral $\int \frac{dz(3+z^2)}{(1+z^2)\sqrt{1+6z^2+z^4}}$ and related integrals.
Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 27-77. Page 27 reads: "Conventui exhibita die 24 April. 1777".
Abstract: *A. a. O., Histoire*, p. 161-162.

E702 De novo genere quaestionum arithmeticarum pro quibus solvendis certa methodus adhuc desideratur. Auctore L. Eulero.

To define the number N so that $A^2 + B^2$ and $A^2 + NB^2$ are simultaneously perfect squares.
Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 78-93. Page 78 reads: "Conventui exhib. die19 Maii 1777".
Abstract: *A. a. O., Histoire*, p. 162-163.
Reprinted in *Commentat. arithm*. 2, 1849, p. 190-197 [**E702a**].

E703 Methodus facilis inveniendi series per sinus cosinusve angulorum multiplorum procedentes, quarum usus in universa theoria astronomiae est amplissimus. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 94-113. Page 94 reads: "Conventui exhibita die 26 Maii 1777".
Abstract: *A. a. O., Histoire*, p. 163-165.

E704 Disquisitio ulterior super seriebus secundum multipla cujusdam anguli progredientibus. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 114-132 + 1 figure. Page 114 reads: "Conventui exhib. die 26 Maii 1777"; according to the records, it was presented to the St. Petersburg Academy on May 29, 1777.
Abstract: *A. a. O., Histoire*, p. 165-166.

E705 Investigatio quarundam serierum, quae ad rationem peripheriae circuli ad diametrum vero proxime definiendam maxime sunt accommodatae. Auctore L. Eulero.

The final formula is $\arctan t = \frac{t}{1+t^2}\left[1+\frac{2}{3}\cdot\frac{t^2}{1+t^2}+\frac{2}{3}\cdot\frac{4}{5}\left(\frac{t^2}{1+t^2}\right)^2+\cdots\right]$ (Also see 1862 E809).

Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 133-149. Page 133 reads: "Conventui exhibita die 7 Junii 1779".
Abstract: *A. a. O., Histoire*, p. 167-168.

E706 De novo genere serierum rationalium et valde convergentium quibus ratio peripheriae ad diametrum exprimi potest. Auctore L. Eulero.

Euler starts out with the identity $\int\frac{2+2x+x^2}{4+x^4}dx = \arctan\frac{x}{2-x}$.

Nova acta academiae scientiarum Petropolitanae 11, (1793), 1798, p. 150-154. Page 150 reads: "Conventui exhibita die 17 Junii 1779".
Abstract: *A. a. O., Histoire*, p. 169.

Also see 1768 (E343H: Spanish translation of the "Lettres à une princesse d'Allemagne"), 1770 (E387C^3, 388C^3: French translation of "Algebra"), 1787 (E613A).

1801.

E707 De insigni usu calculi imaginariorum in calculo integrali. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 3-21. Page 3 reads: "Conventui exhibuit die 3 Nov. 1777".
Abstract: *A. a. O., Histoire*, p. 59-60.

E708 De formulis speciei *mxx* + *nyy* ad numeros primos explorandos idoneis, earumque mirabilibus proprietatibus. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 22-46. Page 22 reads: "Conv. Acad. exhib. die 16 Mart. 1778".
Abstract: A. a. O., Histoire, p. 60-62.

Preliminary report by N. Fuss in *Nouv. mem. de. l'acad. d. sc. de Berlin*, 1776, printed 1779, p. 340-346 [**E708a**].
Reprinted in *Commentat. arithm*. 2, 1849, p. 249-260 [**E708b**].

E709 De evolutione potestatis polynomialis cujuscunque $(1 + x + x^2 + x^3 + x^4 + etc.)^n$. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 47-57. Page 47 reads: "Conventui exhib. die 6 Julii 1778".
Abstract: *A. a. O., Histoire*, p. 63-64.

E710 Specimen transformationis singularis serierum. Auctore L. Eulero.

About what it called the hypergeometric series in the modern terminology, as well as the series whose general term is $\frac{a(a+1)\cdots(a+n)b(b+1)\cdots(b+n)}{1\cdot 2\cdots n\cdot c(c+1)\cdots(c+n)}x^n$.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 58-70. Page 58 reads: "Conventui exhib. die 3 Sept. 1778".
Abstract: *A. a. O., Histoire*, p. 64-65.

E711 Methodus nova ac facilis omnium aequationum algebraicarum radices non solum ipsas sed etiam quascunque earum potestates per series concinnas exprimendi. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 71-90. Page 71 reads: "Conventui exhibit. die 21 Septemb. 1778".
Abstract: *A. a. O., Histoire*, p. 66.

E712 De corporibus cylindricis incurvatis. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 91-100 + 7 figures. Page 91 reads: "Conv. Acad. exhib. die 21 Sept. 1778".
Abstract: *A. a. O., Histoire*, p. 67-68.

E713 Investigatio trianguli in quo distantiae angulorum ab ejus centro gravitatis rationaliter exprimantur. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 12, (1794), 1801, p. 101-113 + 1 figure. Page 101 reads: "Conventui exhib. die 17 Dec. 1778".
Abstract: *A. a. O., Histoire*, p. 68-69.
Reprinted in *Commentat. arithm*. 2, 1849, p. 294-301 [**E713a**].

Also see 1770 (E387[7], 387C[4], 388[7], 388C[4]: new edition and French translation of "Algebra"), 1787 (E609a-612a).

1802.

E714 Exempla quarundam memorabilium aequationum differentialium, quas adeo algebraice integrare licet, etiamsi nulla via pateat variabiles a se invicem separandi. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 13, (1795/6), 1802, p. 3-13. Page 3 reads: "Conventui exhibita die 19 Jan. 1778".
Abstract: *A. a. O., Histoire*, p. 53-54.

E715 De variis modis numeros praegrandes examinandi, utrum sint primi nec ne? Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 13, (1795/6), 1802, p. 14-44. Page 14 reads: "Conventui exhibuit die 16 Mart. 1778".
Abstract: *A. a. O., Histoire*, p. 54-56.
Reprinted in *Commentat. arithm*. 2, 1849, p. 198-214 [**E715a**].
A handwritten French translation of this treatise can be found in the library of the observatory in Uccle, near Brussels.

E716 Resolutio formulae Diophanteae $ab(maa + nbb) = cd(mcc + ndd)$ per numeros rationales. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 13, (1795/6), 1802, p. 45-63. Page 45 reads: "Conventui exhibuit die 1. Decembr. 1778"; according to the records it was presented to the St. Petersburg Academy on December 17, 1778.
Abstract: *A. a. O., Histoire*, p. 56-57.
Reprinted in *Commentat. arithm*. 2, 1849, p. 281-293 [**E716a**].

E717 Solutio problematis mechanici. Auctore L. Eulero.

About the motion, on an uneven plane, of a circular disk with a string wound around it. (Also see 1820 E756).
Nova acta academiae scientiarum Petropolitanae 13, (1795/6), 1802, p. 64-69 + 1 figure. Page 64 reads: "Conventui exhibita die 25. April. 1782"; according to the records, it was presented to the St. Petersburg Academy on February 28, 1782.
Abstract: *A. a. O., Histoire*, p. 57-58.

Also see 1768 and 1772 (E343G^2, 344G^2, 417G^2: English translation of the "Lettres à une princesse d'Allemagne"), 1770 (E387^4, 388^4: new edition of "Algebra").

1805.

E718 Facillima methodus plurimos numeros primos praemagnos inveniendi. Auctore L. Eulero.

The worth of a will be defined, such that $232a^2 + 1$ is a composite number.
Nova acta academiae scientiarum Petropolitanae 14, (1797/8), 1805, p. 3-10. Page 3 reads: "Conventui exhibita die 16. Mart. 1778".

Abstract: *A. a. O., Histoire*, p. 63-64.
Reprinted in *Commentat. arithm*. 2, 1849, p. 215-219 [**E718a**].

E719 Methodus generalior numeros quosvis satis grandes perscrutandi utrum sint primi nec ne? Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 14, (1797/8), 1805, p. 11-51. Page 11 reads: "Conventui exhibita die 16 Martii 1778".
Abstract: *A. a. O., Histoire*, p. 64.
Reprinted in *Commentat. arithm*. 2, 1849, p. 220-242 [**E719a**].

E720 Observatio singularis circa aequationes differentiales lineares. Auctore L. Eulero.

Integration of certain linear differential equations using integrated factors.
Nova acta academiae scientiarum Petropolitanae 14, (1797/8), 1805, p. 52-61. Page 52 reads: "Conventui exhibita die 19. Mart. 1778".
Abstract: *A. a. O., Histoire*, p. 65.

E721 De integrationibus difficillimis quarum integralia tamen aliunde exhiberi possunt. Auctore L. Eulero.

Integration will be accomplished by substitution of complex quantities.
Nova acta academiae scientiarum Petropolitanae 14, (1797/8), 1805, p. 62-74. Page 62 reads: "Conventui exhibita die 21 Martii 1777"; according to the records, it was presented to the St. Petersburg Academy on March 31, 1777.
Abstract: *A. a. O., Histoire*, p. 65-66.

E722 Disquitiones analyticae super evolutione potestatis trinomialis $(1 + x + xx)^n$. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 14, (1797/8), 1805, p. 75-110. Page 75 reads: "Conventui exhibita die 17. Aug. 1778".
Abstract: *A. a. O., Histoire*, p. 66-67.

E723 Brief von Euler.

About a general map of the Russian empire.
Nordischer Merkur 2, 1805, p. 249-252. Dated December 10, 1735.

Also see 1747 (E92B: French translation of "Rettung der göttlichen Offenbahrung"), 1783 (E545A).

E724 Recherches sur quelques intégrations remarquables dans l'analyse des fonctions à deux variables connuës (!) sous le nom de différences partielles; par Mr. Leonard Euler.

The coefficients which arise in this equation are of the form $kx^m y^n$.
Nova acta academiae scientiarum Petropolitanae 15, (1799/1802), 1806, p. 3-28. Page 3 reads: "Présentée à l'Académie le 8 Décembre 1777."
Abstract: *A. a. O., Histoire*, p. 93-94.

E725 Illustratio paradoxi circa progressionem numerorum idoneorum sive congruorum. (V. Nov. Act. T. XIV. pag. 51. No. 7.)

About the worth of the product $\alpha\beta$, if the equation $\alpha x^2 + \beta y^2 = N$ has only one solution when N is a prime number.
Nova acta academiae scientiarum Petropolitanae 15, (1799/1802), 1806, p. 29-32. The author's name is missing after the title, which is certainly because of an oversight; in the "Extrait" on p. 94 of the *Histoire* Euler is named as the author. Page 29 reads: "Conventui exhibita die 20. Aprilis 1778".
Abstract: *A. a. O., Histoire*, p. 94-95.
Reprinted in *Commentat. arithm*. 2, 1849, p. 261-262 [**E725a**].

E726 Demonstratio insignis theorematis numerici circa uncias potestatum binomialium. Auctore L. Eulero.

It deals with the sum of a sequence whose terms are the products of two binomial coefficients.
Nova acta academiae scientiarum Petropolitanae 15, (1799/1802), 1806, p. 33-43. Page 33 reads: "Conventui exhibita die 17. Septembris 1778".
Abstract: *A. a. O., Histoire*, p. 95-96.

E727 Accuratior evolutio problematis de linea brevissima in superficie quacunque ducenda. Auctore L. Eulero.

Nova acta academiae scientiarum Petropolitanae 15, (1799/1802), 1806, p. 44-54. Page 44 reads: "Conventui exhibita die 25. Januarii 1779".
Abstract: *A. a. O., Histoire*, p. 96-97.

Also see 1769 (E375A).

1807.

See 1770 ($E387B^2$, $387C^5$, $388B^2$, $388C^5$: Dutch and French translations of the "Lettres à une princesse d'Allemagne").

1808.

See 1783 (E546A).

1809.

E728 De resolutione fractionum compositarum in simpliciores. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 1, (1803/6), 1809, p. 3-25. Page 3 reads: "Conventui exhib. die 11. Januarii 1779".

E729 Dilucidationes super problemate geometrico de quadrisectione trianguli a Jacobo Bernoulli olum tractato. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 1, (1803/6), 1809, p. 26-48 + 4 figures. Page26 reads: "Conventui exhib. die 3 Maii 1779".

E730 Solutio completa problematis de quadrisectione trianguli per duas rectas inter se normales. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 1, (1803/6), 1809, p. 49-87 + 1 diagram. Page 49 reads: "Conventui exhibita die 3 Maii 1779".

1810.

E731 Solutio problematis ob singularia calculi artificia memorabilis. Auctore L. Eulero.

The problem is: "Invenire lineam curvam AM, in qua, positis coordinatis $CP = x$, $PM = y$, arcu $AM = s$ et recta $CM = \sqrt{xx + yy} = z$; formula integralis $\int v ds$ maximum minimumve valorum obtineat, exsistente v functione quacunque ipsius z."
Mémoires de l'académie des sciences de St.-Pétersbourg 2, (1807/8), 1810, p. 3-9 + 2 figures. Page 3 reads: "Conventui exhibita die 22 Martii 1779".

E732 Solutio facilior problematis Diophantei circa triangulum, in quo rectae ex angulis latera opposita bisecantes rationaliter exprimantur. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 2, (1807/8), 1810, p. 10-16. Page 10 reads: "Conventui exhibita die 12. Aug. 1779".
Reprinted in *Commentat. arithm.* 2, 1849, p. 362-365 [**E732a**].

E733 Solutio facilis problematis, quo quaeritur sphaera, quae datas quatuor sphaeras utcunque dispositas contingat. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 2, (1807/8), 1810, p. 17-28 + 2 figures. Page 17 reads: "Conventui exhibita die 15 Nov. 1779".

E733A Translated into Russian: Рѣшенїе вопроса о сысканїи шара, которой бы касался къ даннымъ четыремъ шарамъ, какимъ бы то ни быдо образомъ расположеннымъ.

Умозрительныя изслѣдованія императорской Санктпетербургской академіи наукъ 4, 1815, p. 10-20 + 2 figures. According to Bobynin's Russian physicist/mathematician bibliography 3: 3 (1900), p. 159.

Also see 1770 (E387E^2, 388E^2: French translation of "Algebra").

1811.

E734 Integratio aequationis differentialis huius $dy + yydx = \frac{Adx}{(a+2bx+cxx)^2}$. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 3, (1809/10), 1811, p. 3-15. Page 3 reads: "Conventui exhibita die 23 Februarii 1779"; according to the records, it was presented to the St. Petersburg Academy on February 22, 1779.

E735 De insigni paradoxo, quod in analysi maximorum et minimorum occurrit. Auctore L. Eulero.

About a problem from the calculus of variations that gives the maximum or minimum of the integral $\int \sqrt{x(dx^2+dy^2)}$.

Mémoires de l'académie des sciences de St.-Pétersbourg 3, (1809/10), 1811, p. 16-25 + 3 figures. Page 16 reads: "Conventui exhib. die 31 Maii 1779"; according to the records, it was presented to the St. Petersburg Academy on March 11, 1779.

E736 De summatione serierum in hac forma contentarum $\frac{a}{1}+\frac{a^2}{4}+\frac{a^3}{9}+\frac{a^4}{16}+\frac{a^5}{25}+\frac{aa^6}{36}+etc.$ Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 3, (1809/10), 1811, p. 26-42. Page 26 reads: "Conventui exhibita die 31 Maji 1779".

E737 De transformatione functionum, duas variabiles involventium, dum earum loco aliae binae variabiles introducuntur. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 3, (1809/10), 1811, p. 43-56. Page 43 reads: "Conventui exhib. die 18 Octobris 1779".

E738 Solutio quaestionis curiosae ex doctrina combinationum, auctore L. Eulero.

About a permutation problem.
Mémoires de l'académie des sciences de St.-Pétersbourg 3, (1809/10), 1811, p. 57-64. Page 57 reads: "Conventui exhibita die 18 Octobris 1779".

1812.

See 1768 and 1772 (E343[5], 344[5], 417[5]: new edition of the "Lettres à une princesse d'Allemagne"), 1770 (E387A[3], 388A[3]: Russian translation of "Algebra").

1813.

E739 Regula facilis problemata Diophantea per numeros integros expedite resolvendi. Auctore L. Eulero.

About the equation $\alpha x^2 + \beta x + \gamma = y^2$.
Mémoires de l'académie des sciences de St.-Pétersbourg 4, (1811), 1813, p. 3-17. Page 3 reads: "Conventui exhib. die 30 Aprilis 1778"; according to the records, it was presented to the St. Petersburg Academy on May 4, 1778
Reprinted in *Commentat. arithm*. 2, 1849, p. 263-269 [**E739a**].

E740 De lineis curvis non in eodem plano sitis, quae maximi vel minimi proprietate sunt praeditae. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 4, (1811), 1813, p. 18-42 + 2 figures. Page 18 reads: "Conventui exhib. die 8 Martii 1779".

E741 Integratio generalis aequationum differentialium linearium cujuscunque gradus et quotcunque variabiles involventium. Auctore L. Eulero.

The equations are linear partial differential equations with constant coefficients.
Mémoires de l'académie des sciences de St.-Pétersbourg 4, (1811), 1813, p. 43-51. Page 43 reads: "Conventui exhib. die 28 Octobris 79".

E742 Observationes circa fractiones continuas in hac forma contentas: $$S = \cfrac{n}{1+\cfrac{n+1}{2+\cfrac{n+2}{3+\cfrac{n+3}{4+etc.}}}}$$

Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 4, (1811), 1813, p. 52-74. Page 52 reads: "Conventui exhib. die 18. Novembris 1779".

E743 De serie maxime memorabili, qua potestas binomialis quaecunque exprimi potest. Auctore L. Eulero.

The series consists of a finite number of terms with whole positive as well as whole negative exponents.
Mémoires de l'académie des sciences de St.-Pétersbourg 4, (1811), 1813, p. 75-87. Page 75 reads: "Conventui exhib. die 20. Decembris 1779".

Also see 1787 (E613a).

1814.

See 1756 (E222a).

1815.

E744 De divisoribus numerorum in forma *mxx* + *nyy* contentorum. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 3-23. Page 3 reads: "Conventui exhibuit die 21 Maji 1778". Pages 21-23 contain an "Additamentum," which, according to the records, was presented to the St. Petersburg Academy on June 1, 1778.
Reprinted in *Commentat. arithm*. 2, 1849, p. 272-280 [**E744a**].

E745 De fractionibus continuis Wallisii. Auctore L. Eulero.

Generalization of Wallis' expression for π and processing this expression through certain integrals.
Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 24-44. Page 24 reads: "Conventui exhibuit die 7 Februarii 1780".

E746 Methodus succincta summas serierum infinitarum per formulas differentiales investigandi. Auctore L. Eulero.

Derivation of the Euler Summation Formula and related formulas.
Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 45-56. Page 45 reads: "Conventui exhibuit die 13 Martii 1780".

E747 De seriebus memorabilibus quibus sinus et cosinus angulorum multiplorum exprimere licet. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 57-72. Page 57 reads: "Conventui exhibuit die 13 Mart. 1780".

E748 Investigatio quadrilateri in quo singulorum angulorum sinus datam inter se teneant rationem; ubi artificia prorsus singularia in analysi Diophantea occurrunt. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 73-95. Page 73 reads: "Conventui exhibita die 1 Maii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 380-391 [**E748a**].

E749 Geometrica et sphaerica quaedam. Auctore L. Eulero.

Problems about planar and spherical triangles which have straight lines or circle arcs drawn from every corner, which intersect in a point.

Mémoires de l'académie des sciences de St.-Pétersbourg 5, (1812), 1815, p. 96-114 + 1 diagram. Page 96 reads: "Conventui exhibuit die 1 Maji 1780".

Also see 1747 (E92A[3]: Italian translation of "Rettung der göttlichen Offenbahrung"). 1790 (E648A), 1810 (E733A).

1817.

See 1766 (E309b).

1818.

E750 Commentatio in fractionem continuam, qua illustris La Grange potestates binominales expressit. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 6, (1813/4), 1818, p. 3-11. Page 3 reads: "Conventui exhibuit die 20 Mart. 1780".

E751 Analysis facilis aequationem Riccatianam per fractionem continuam resolvendi. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 6, (1813/4), 1818, p. 12-29. Page 12 reads: "Conventui exhibuit die 20 Mart. 1780".

E752 De integralibus quibusdam inventu difficillimis. Auctore L. Eulero.

About the definite integral $\int_0^1 \frac{-dxlx}{\sqrt{1-x^2}}$ and similar integrals.

Mémoires de l'académie des sciences de St.-Pétersbourg 6, (1813/4), 1818, p. 30-53. Page 30 reads: "Conventui exhibuit die 1 Maii 1780".

E753 Solutio succincta et elegans problematis, quo quaeruntur tres numeri tales, ut tam summae quam differentiae binorum sint quadrata. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 6, (1813/4), 1818, p. 54-65. Page 54 reads: "Conventui exhibuit die 11 Maii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 392-396 [**E753a**].

Also see 1770 (E387E[6], 388E[6]: English translation of "Algebra").

1820.

E754 Problème de géométrie résolu par l'analyse de Diophante. Par M. L. Euler.

To find a rational triangle which has rational lines connecting the corners to the center of gravity.

Mémoires de l'académie des sciences de St.-Pétersbourg 7, (1815/6), 1820, p. 3-9. Page 3 reads: "Présentée à la Conférence le 4 Mars 1782."
Reprinted in *Commentat. arithm*. 2, 1849, p. 488-491 [**E754a**].

E755 De casibus quibus formulam $x^4 + mxxyy + y^4$ ad quadratum reducere licet. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 7, (1815/6), 1820, p. 10-22. Page 10 reads: "Conventui exhibuit die 2 Maji 1782".
Reprinted in *Commentat. arithm*. 2, 1849, p.492-500 [**E755a**].

E756 Solutio problematis mechanici non parum curiosi. Auctore L. Eulero.

About the motion on an uneven plane of a circular disk with a string wound around it (also see 1802 E717).
Mémoires de l'académie des sciences de St.-Pétersbourg 7, (1815/6), 1820, p. 23-32 + 2 figures. Page 23 reads: "Conventui exhibuit die 14 Martii 1782".

E757 De problemate trajectoriarum orthogonalium ad superficies translato. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 7, (1815/6), 1820, p. 33-60 + 2 figures. Page 33 reads: "Conventui exhibuit die 12 Augusti 1782".

1821.

See 1770 (E387[8], 387E[7], 388[8], 388E[7]: new edition and English translation of "Algebra").

1822.

E758 De binis formulis speciei $xx + myy$ et $xx + nyy$ inter se concordibus et discordibus. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 8, (1817/8), 1822, p. 3-16. Page 3 reads: "Conventui exhibuit die 5. Junii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 406-413 [**E758a**].

E759 Investigatio accuratior circa brachystochronas (!). Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 8, (1817/8), 1822, p. 17-28 + 3 figures. Page 17 reads: "Conventui exhibuit die 10. Julii 1780".

E760 De vera brachistochrona seu linea celerrimi descensus in medio resistente. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 8, (1817/8), 1822, p. 29-40 + 1 figure. Page 29 reads: "Conventui exhibuit die 13. Nov. 1780".

E761 De brachistochrona in medio resistente dum corpus ad centrum virium utcunque attrahitur. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 8, (1817/8), 1822, p. 41-45 + 1 figure. Page 41 reads: "Conventui exhibuit die 20. Nov. 1780".

Also see 1770 (E387E^3 388E^3: English translation of "Algebra").

1823.

E762 Lettera inedita di Eulero a Lagrange.

Biblioteca italiana 30, Milano 1823, p. 111-112. Dated May 3, 1766.
Reprinted in *Opera postuma* 1, 1862, p. 567-568 [**E762a**].
Reprinted in *Œuvres de Lagrange* 14, Paris 1892, p. 208-209 [**E762b**].

Also see 1764 (E282B), 1768 and 1772 (E343G^3, 344G^3, 417G^3: English translation of the "Lettres à une princesse d'Allemagne").

1824.

E763 De tribus pluribusve numeris inveniendis, quorum summa sit quadratum, quadratorum vero summa biquadratum. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 3-13. Page 3 reads: "Conventui exhibit. die 18. Mai 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 397-402 [**E763a**].

E764 Resolutio facilis quaestionis difficillimae, qua haec formula maxime generalis: $vvzz(axx + byy)^2 + \Delta xxyy(avv + bzz)^2$ ad quadratum reduci postulatur. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 14-19. Page 14 reads: "Conventui exhib. die 12. Junii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 414-417 [**E764a**].

E765 De problemate curvarum synchronarum, ejusque imprimis inverso. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 20-34 + 1 diagram. Page 20 reads: "Conventui exhibuit die 28. Maji 1781".

E766 Methodus nova et generalis problema synchronarum inversum aliaque ejusdem generis resolvendi. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 35-46 + 5 figures. Page 35 reads: "Conventui exhib. die 28. Maii 1781".

E767 De curvis quarum radii osculi tenent rationem duplicatam distantiae a puncto fixo, earumque mirabilibus proprietatibus. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 47-56 + 1 diagram. Page 47 reads: "Conventui exhib. die 20. Aug. 1781".

E768 De unciis potestatum binomii earumque interpolatione. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 9, (1819/20), 1824, p. 57-76. Page 57 reads: "Conventui exhibuit die 3. Dec. 1781".

Also see 1768 (E342[2]: new edition of "Institutiones calculi differentialis"), 1770 (E387E[10], 388E[10]: English translation of "Algebra").

1825.

See 1747 (E92B[2]: French translation of "Rettung der göttlichen Offenbahrung").

1826.

E769 Solutio problematis Fermatiani de duobus numeris, quorum summa sit quadratum, quadratorum vero summa biquadratum, ad mentem ill. Lagrange adornata. Auctore L. Eulero.

Mémoires de l'académie des sciences de St.-Pétersbourg 10, (1821/2), 1826, p. 3-6. Page 3 reads: "Conventui exhib. die 5 Junii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 403-405 [**E769a**].

E770 Enodatio maximi paradoxi, in problemate quodam mechanico occurentis. Auctore L. Eulero.

The problem is: "Invenire curvam *AYZ*, super qua corpus descendens secundum horizontem *AB* motu uniformiter accelerato progrediatur, ita ut tempus per *AY* sit in ratione subduplicata abscissae *AX*."
Mémoires de l'académie des sciences de St.-Pétersbourg 10, (1821/2), 1826, p. 7-15 + 3 figures. Page 7 reads: "Conventui exhibuit die 28. Maji 1781".

E771 Solutio trium problematum difficiliorum ad methodum tangentium inversam pertinentium. Auctore L. Eulero.

There are three problems in differential geometry, which list ordinary first-order differential equations whose solutions are curves of are conic sections.
Mémoires de l'académie des sciences de St.-Pétersbourg 10, (1821/2), 1826, p. 16-26 + 5 figures. Page 16 reads: "Conventui exhibuit die 12. Nov. 1781".

1827.

See 1769 and 1770 (E366[3], 385[3]: new edition of "Institutiones calculi integralis").

1828.

See 1768 (E342A: German translation of "Institutiones calculi integralis"), 1770 (E387E[4], 387E[8], 388E[4], 388E[8]: English translations of "Algebra").

1829.

See 1768 and 1772 (E343[6], 344[6], 417[6]: new edition of the "Lettres à une princesse d'Allemagne"), 1769 (E366A: German translation of "Institutiones calculi integralis").

1830.

E772 De insigni promotione analysis Diophantaeae[12].

A fourth-order expression with two variables will be made quadratic.
Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 1-11. Page 1 reads: "Conventui exhibita die 12. Junii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 418-424 [**E772a**].

E773 Solutio problematis difficillimi, quo hae duae formulae: *aaxx* + *bbyy* & *aayy* + *bbxx* quadrata reddi debent[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 12-30. Page 12 reads: "Conventui exhibita die 3. Julii 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 425-437 [**E773a**].

E774 Investigatio binorum numerorum formae $xy(x^4 - y^4)$ quorum productum sive quotus sit quadratum[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 31-45. Page 31 reads: "Conventui exhibita die 14. Aug. 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 438-446 [**E774a**].

E775 De binis numeris, quorum summa sive aucta sive minuta tam unius quam alterius quadrato producat quadrata[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 46-48. Page 46 reads: "Conventui exhibita die 14. Aug. 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 447-449 [**E775a**].

[12] The beginning of the first page of the volume reads: "Commentationes cel. L. Euleri".

E776 Dilucidationes circa binas summas duorum biquadratorum inter se aequales[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 49-57. Page 49 reads: "Conventui exhibita die 28. Aug. 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 450-456 [**E776a**].

E777 De resolutione hujus aequationis $0 = a + bx + cy + dxx + exy + fyy + gxxy + hxyy + ixxyy$ per numeros rationales[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 58-68. Page 58 reads: "Conventui exhibita die 9. Oct. 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 467-473 [**E777a**].

E778 Methodus nova et facilis formulas cubicas et biquadriticas ad quadratum reducendi[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 69-91. Page 69 reads: "Conventui exhibita die 16. Oct. 1780".
Reprinted in *Commentat. arithm*. 2, 1849, p. 474-478 [**E778a**].

E779 Solutio problematis ad analysin infinitorum indeterminatorum referendi[12].

To define a function x of v so that when p, q, r, s, t, … are given as functions of v, then all integrals $\int pdx$, $\int qdx$, $\int rdx$, $\int sdx$, $\int tdx$, …can be evaluated.

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 92-94. Page 92 reads: "Conventui exhibita die 20. Aug. 1781".

E780 De infinitis curvis algebraicis, quarum longitudo indefinita arcui elliptico aequatur[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 95-99. Page 52[13] reads: "Conventui exhibita die 20. Aug. 1781".

E781 De infinitis curvis algebraicis, quarum longitudo arcui parabolico aequatur[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 100-101 + 1 figure (in addition to the text figure on p. 101). Page 100 reads: "Conventui exhibita die 20. Aug. 1781".

E782 De binis curvis algebraicis eadem rectificatione gaudentibus[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 102-113. Page 102 reads: "Conventui exhibita die 20. Aug. 1781".

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[12] The beginning of the first page of the volume reads: "Commentationes cel. L. Euleri".
[13] This must be an error, and probably Eneström's. –G.P.

E783 De curvis algebraicis quarum omnes arcus per arcus circulares metiri liceat[12].

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 114-124 + 4 figures. Page 114 reads: "Conventui exhibita die 20. Aug. 1781".

E784 Solutio problematis analytici difficillimi[12].

To define the function Π of x and y so that when p, q, P, and Q are functions of x/y then the integral $\int \frac{pdx + \Pi q dy}{\Pi P + Q} x^{n-1}$ can be evaluated.

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 125-130. Page 125 reads: "Conventui exhibita die 19. Aug. 1782".

E785 Intégration d'une espèce remarqable d'équation différentielle dans l'analyse des fonctions à deux variables[12].

A special nth-order partial differential equation with 2 independent variables will be integrated.

Mémoires de l'académie des sciences de St.-Pétersbourg 11, 1830, p. 131-137. Page 131 reads: "Présentée à l'Académie le 11. Déc. 1777."

Also see 1770 and 1794 (E385A, 660A: German translation of "Institutiones calculi integralis"); also the note to E660A.

1833.

See 1768 and 1772 (E343G[4], 344G[4], 417G[4]: English translation of the "Lettres à une princesse d'Allemagne").

1834.

See 1747 (Note to E92B[2]: French translation of "Rettung der göttlichen Offenbahrung").

1835.

See 1748 (E101A[3], 101B[2], 102A[2]: French and German translations of "Introductio in analysin infinitorum").

1836.

See 1748 (E102B[2]: German translation of "Introductio in analysin infinitorum"), 1770 (E387E[9], 388E[9]: English translation of "Algebra").

1839.

[12] The beginning of the first page of the volume reads: "Commentationes cel. L. Euleri".

E786 Œuvres complètes en français de L. Euler, publiées par MM. Dubois et Drapiez, examinateurs permanents à l'école militaire de Belgique; Moreau, Weiler et Steichen, professeurs à la même école, et Ph. Vandermaelen, fondateur de l'établissement géographique de Bruxelles; Accompagnées de figures, et ornées du portrait de L. Euler, par M. Madou, professeur de dessin à l'école militaire. Tome 1-5. Bruxelles, établissement géographique près la porte de Flandre. 1839.

Kgl. Library in Brussels.
Example used: G. E.

[Tome I.] Lettres à une princesse d'Allemagne. Tome I.
8^0, Picture + LXXII + 347 pages + 4 diagrams. The volume number I is only written on the title page. Contains eulogies from Fuss and Condorcet, as well as the 137 first letters (see 1768 E343[7]).

[Tome 2.] Lettres à une princesse d'Allemagne. Tome II.
8^0, 498 + (2) pages + 4 diagrams. The volume number 2 is only written on the title page. Contains letters 138-234 (see 1768 E344[7], 1772 E417[7]) as well as ten "Mémoires sur diverses parties de la physique" (see E34A, 88b, 88A, 91a, 103a, 108A, 109A, 151A, 209a, 234a).

[Tome 3.] Arithmétique raisonnée.
8^0, (4) + 4 + 476 + (2) pages. The volume number 3 is only written on the title page. Contains a version of the counterfeit work "L'arithmetique raisonnee" (see the note to 1792), and several chapters of "Algebra" (see 1770 E387C[6], 388C[6]), as well as "Des nombres figurés ou polygones et de leur application à la sommation des piles de boulets (extrait de l'algèbre et des mémoires de l'auteur," and the treatise listed as E36A in this index, and "Notions préliminaires sur les nombres parfaits, et les nombres amiables (extraites de différents mémoires de L. Euler)."

[Tome 4.] Algèbre élémentaire.
8^0, (4) + 491 + (2) pages. The volume number, which is only written on the title page, is itself given incorrectly as 5; the words "par M. Madou … militaire" are not in the correct place in the title. Contains a version of "Algebra" (see 1770 E387C[6], 388C[6]).

[Tome 5.] Essai d'une nouvelle théorie de la musique.
8^0, VIII + VII + 270 + (2) pages. The volume number 5 is only written on the title page; the words "par M. Madou … militaire," as in volume 4, are not in the correct place in the title. Contains the treatises which listed above as E33A, 314a, 315a, 457A.

For volumes 3, 4, and 5 there are new title editions with Brussels or Paris as place of publication and 1865 as publication year (see below).

E786$_3^2$ Cours d'arithmétique raisonée, théorique et pratique sans le secours d'aucun maître. Par Léonard Euler. Traduit augmenté et mis au courant de la science actuelle par une société de savants. Paris. Librarie scientifique et philosophique. 1865.

Kgl. Library in Berlin.

Example used: G. E.

E786$_4^2$ Cours complet d'algèbre, Méthode facile, au moyen de laquelle on peut apprendre seul, l'Algèbre à fond, faire les calculs algébriques les plus difficiles, et résoudre promptement toutes les questions analytiques quelconques par Léonard Euler Traduit augmenté et mis au courant de la science actuelle par M. M. Dubois et Drapier (!), examinateurs permanents à l'école militaire, Moreau, Wiler et Steichen, professeurs à la même école. prix fr. 7.50 Bruxelles. Chez les principaux libraires du royaume et de l'étranger. 1865.

Example used: G. E.

E786$_5^2$ Musique mathématique. La musique rendue facile, par le système de la notation lettrée, ou essai d'une nouvelle théorie de la musique, fondée sur les connaissances physiques et métaphysiques appliquées aux vrais principes de l'harmonie. Par Léonard Euler, traduit augmentée et mis au courant de las science actuelle par une société de savants. Paris, librarie scientifique et philosophique, 1865.

Report by H. Bosmans.

Also see 1768 and 1772 (E343G^5, 344G^5, 417G^5: English translation of the "Lettres à une princesse d'Allemagne"); also the note to E786.

1840.

Also see 1768 and 1772 (E343G^6, 344G^6, 417G^6: English translation of the "Lettres à une princesse d'Allemagne"), 1770 (E387E^5, 388E^5: English translation of "Algebra").

1842.

Also see 1768 and 1772 (E343^8, 343G^7, 344^8, 344G^7, 417^8, 417G^7: new edition and English translation of the "Lettres à une princesse d'Allemagne").

1843.

E787 Solutio problematis in Actis Lipsiensibus A. 1745 propositi.

The problem is: "Circa datum focum *C* describere curvam *AEBF*, ut omnes radii ex *C* emissi post binas reflexiones in *M* et *N* factus, in ipsum punctum *C* revertantur."
Correspondance mathématique et physique de quelques célèbres géomètres du XVIII^{ème} siècle publiée par P.H. Fuss 1, St. Petersburg 1843, p. 341-354 + 5 figures. Enclosure to a letter from Euler to Goldbach from November 30, 1745 (see below).

E788 [94 letters from L. Euler to Chr. Goldbach, 1729-1763.]

Published by P. H. Fuss in *Correspondance mathématique et physique* 1, St. Petersburg 1843, p. 3-672. The letters are dated:

[14] New Style means using the new Gregorian calendar. – G.P.

November 15, 1763 (p. 669-670). December 17, 1763 (p. 671-672).

The originals of the letters are found in the Archive of the St. Petersburg Academy.

Also see 1768 and 1772 (E343^9, 344^9 417^9: new edition of the "Lettres à une princesse d'Allemagne")

1844.

See 1747 (E92^2: new edition of "Rettung der göttlichen Offenbahrung").

1845.

See 1770 (E391B), 1794 (E660^2: new edition of "Institutiones calculi integralis"); also the note to 660^2.

1846.

E789 [Several lines out of a letter from L. Euler to Albrecht von Haller from July 4, 1744.]

Published by R. Wolf in the article: "Auszüge aus Briefen von Albrecht von Haller, mit litterarisch-hisorischen Notizen"; *Mittheilungen der naturforschenden Gesellschaft in Bern*, 1846, p. 27-28. The letter can be found in the city library in Bern.

Also see 1768 and 1772 (E343G^8, 344G^8 417G^8: English translation of the "Lettres à une princesse d'Allemagne").

1847.

E790 Leonhardi Euleri Commentatio de matheseos sublimioris utilitate ex autographo edidit G. Friedländerus.

Journal für die reine und angewandte Mathematik 35, 1847, p. 106-116. Page 106 contains a foreword from the publisher, p. 107-109 a report from J. B. Merian dated November 15, 1792, which indicates that the treatise was presented to the Berlin Academy on this day, or that Merian at least had the intention to present the treatise (because the "Histoire" of the Berlin Academy 1792-1793, Berlin 1798, does not mention this matter); the treatise itself, which was written by Euler in 1741, begins on p. 109.

E790A Translated into French: Sur l'utilité des mathématiques supérieures par Euler. Traduit par Ed. Lévy.

Nouvelles annales de mathématiques 12, 1853, p. 5-21.

E790B Translated into Spanish: Memoria de Leonardo Euler sobre la utilidad de las mathematicas superiores ó sublimes.

Revista de los progresos de las ciencias exactas 3, Madrid 1853, p. 526-535.

Also see 1768 (the note to E343B[5]).

1848.

See 1736 (E15A: German translation of "Mechanica"), 1768 and 1772 (E343B[5], 417B[5]: German translation of the "Lettres à une princesse d'Allemagne").

1849.

E791 Leonhardi Euleri Commentationes arithmeticae collectae. Auspiceis academiae imperialis scientiarum Petropolitanae ediderunt auctoris pronepotes P. H. Fuss et Nicolaus Fuss. Insunt plura inedita tractatus de numerorum doctrina capita XVI aliaque. Tomus prior.—Tomus posterior. Petroploi typis ac impensis academiae imperialis scientiarum. 1849.

Kgl. Library in Berlin.
Example used: G. E.
Large 4^0. 1: LXXXVII + (2) + 584 pages; 2: VIII + (1) + 651 pages. Before the real title page, there is another with the title: "Leonhardi Euleri opera minora collecta". Pages VII-XXVII, LIV-LXXXIII are bibliographical content and pages XXIX-XLIX are a reprint of the eulogy from N. Fuss. The two volumes together contain 94 numbered treatises and five further "Additamenta." I have listed below the numbers which the treatises have in this index, and in parentheses, the corresponding numbers of the "Commentationes arithmetica": 26b (I), 29b (II), 36b (III), 54b (IV), 98a (V), 100a (Add. 2), 134b (VII), 152a (X), 164a (VI), 167b (VIII), 175a (Add. 3), 191a (IX), 228b (XII), 241a (XV: 1), 242a (XV: 2), 243a (XI), 244a (XVI), 253a (XVIII), 255a (XIV), 256a (XIII), 262a (XIX), 270a (XVII), 271a (XX), 272a (XXI), 279a (XXII), 283a (XXV), 309a (XXIV), 323a (XXIII), 369a (XXVI), 394a (XXVII), 395a (XXVIII), 405a (XXIX), 407a (XXX), 427a (XXXII), 428a (XXXIII), 445b (XXXVIII), 449a (XXXVII), 451a (XXXVI), 452a (XXXIX), 454a (XLI), 461a (XLI Add.), 466a (XLVI), 467a (XLVII), 474a (XXXI), 498a (LXVI), 515a (LXXII), 523a (LXXXIV), 530a (LXX), 542a (L), 552a (XXXIV), 554a (XXXV), 556a (XL), 557a (XLII), 558a (XLIII), 559a (XLIV), 560a (XLV), 564a (LII), 566a (LIII), 586a (XLVIII), 591a (XLIX), 596a (LI), 598a (LIV), 610b (LV), 683a (LVI), 696a (LVII), 699a (LXII), 702a (LVIII), 708b (LXIII), 713a (LXIX), 715a (LIX), 716a (LXVIII), 718a (LX), 719a (LXI), 725a (LXIV), 732a (LXXI), 739a (LXV), 744a (LXVII), 748a (LXXIII), 753a (LXXIV), 754a (LXXXVII), 755a (LXXXVIII), 758a (LXXVII), 763a (LXXV), 764a (LXXVIII), 769a (LXXVI), 772a (LXXIX), 773a (LXXX), 774a (LXXXI), 775a (LXXXII), 776a (LXXXIII), 777a (LXXXV), 778a (LXXXVI), 792 (LXXXIX), 793 (XC), 794 (XCI), 795 (XCII), 796 (XCIII), 797 (XCIV), 798 (Add. 1), 797 (Add. 4).

E792 Tractatus de numerorum doctrina Capita XVI, quae supersunt.

Commentationes arithmeticae 2, 1849, p. 503-575.
Reprinted in *Opera postuma* 1, 1862, p. 3-75 [**E792a**].

E793 Considerationes circa analysin Diophanteam.

Certain expressions, for example $vx + v + x$, $vy + v + y$, $xy + x + y$, will be simultaneously made quadratic.
Commentationes arithmeticae 2, 1849, p. 576-587; pages 586-587 contain an "Appendix."
Reprinted in *Opera postuma* 1, 1862, p. 128-139 [**E793a**].

E794 Theorema arithmeticum ejusque demonstratio.

The theorem says $\frac{1}{(a-b)(a-c)(a-d)\ldots} + \frac{1}{(b-a)(b-c)(b-d)\ldots} + \cdots = 0.$
Commentationes arithmeticae 2, 1849, p. 588-592; unfinished.
Reprinted in *Opera postuma* 1, 1862, p. 152-156 [**E794a**].

E795 De quadratis magicis.

Commentationes arithmeticae 2, 1849, p. 593-602. According to the statement on p. 593, it was presented to the St. Petersburg Academy on October 17, 1776. The manuscript prepared by M. Golowin is found in the Archive of the St. Petersburg Academy.
Reprinted in *Opera postuma* 1, 1862, p. 140-151 [**E795a**].

E796 Recherches sur le problème de trois nombres carrés tels, que la somme de deux quelconques, moins le troisième, fasse un nombre carré.

Commentationes arithmeticae 2, 1849, p. 603-616. It was probably presented to the St. Petersburg Academy on March 1, 1781. The manuscript prepared by A. Wilbrecht is found in the Archive of the St. Petersburg Academy.
Reprinted in *Opera postuma* 1, 1862, p. 105-118 [**E796a**].
Reprinted in *Sphinx-Œdipe* (Nancy) [1], 1906/7, p. 163-183 [**E796b**].

E797 Recherches sur le problème de quatre nombres positifs et en proportion arithmétique tels, que la somme de deux quelconques soit toujours un nombre carré.

Commentationes arithmeticae 2, 1849, p. 617-625. According to the statement on p. 617, it was presented to the St. Petersburg Academy on April 23, 1781. The manuscript prepared by A. Wilbrecht is found in the Archive of the St. Petersburg Academy.
Reprinted in *Opera postuma* 1, 1862, p. 119-127 [**E797a**].

E798 De numeris amicibilibus.

Commentationes arithmeticae 2, 1849, p. 627-636. According to C. G. J. Jacobi, it was read to the Berlin Academy on February 23, 1747. The manuscript is found in the Archive of the Berlin Academy, according to Jacobi.
Reprinted in *Opera postuma* 1, 1862, p. 85-100 [**E798a**].

E799 Fragmenta commentationis cujusdam majoris, de invenienda relatione inter latera triangulorum, quorum area rationaliter exprimi possit.

Commentationes arithmeticae 2, 1849, p. 648-651.
Reprinted in *Opera postuma* 1, 1862, p. 101-104 [**E799a**].

Also see 1736 (E16A: German translation of "Mechanica").

1851.

E800 [Letter from L. Euler to Christoph Jezler from May 4, 1765.]

Published by R. Wolf in the article: "Zwei Briefe aus Christoph Jezlers Correspondenz"; *Mittheilungen der naturforschenden Gesellschaft in Bern*, 1851, p. 53-58. I do not currently know where the original of this letter can be found.

Also see 1741 (E53A), 1747 (E92[3]: new edition of "Rettung der göttlichen Offenbahrung").

1852.

E801 [Three letters from Euler to Fredrick the Great, 1743.]

Published in *Œuvres de Frédéric le Grand* 20, Berlin 1852, p. 199-203. The letters are dated January 19, 1743 (p. 199-200), January 24, 1743 (p. 201), October 19, 1743 (p. 202-203).

1853.

E802 [Several lines out of letters from L. Euler to Johannes Schorndorf from April 27, 1743 and May 26, 1750.]

Published by R. Wolf in the *Mittheilungen der naturforschenden Gesellschaft in Bern*, 1853, p. 243. In March 1910, the letters were in the hands of Mr. Felix Bruckhardt in Basel.

Also see 1765 (E289A: German translation of "Theoria motus corporum solidorum seu rigidorum"), 1768 and 1772 (E343B[6], 417B[6]: German translation of the "Lettres à une princesse d'Allemagne"), 1776 (E478A, 479A), 1784 (E568A, 569A), 1786 (E607A), 1787 (E612A), 1847 (E790A, 790B).

1854.

E803 [Fourteen letters or extracts of letters from Euler to W. J. G. Karsten, 1758-1765.]

Published by Gustav Karsten in the article: "Briefe von Leonhard Euler und von Joh. Alb. Euler an Wenzeslaus Joh. Gust. Karsten"; *Allgemeine Monatschrift für Wissenschaft und Literatur* (Braunschweig) 1854, p. 327-240. The letters are dated: July 25, 1758 (p. 327-328), November 7, 1758 (p. 328), July 6, 1760 (p. 328-331), August 5, 1760 (p. 331-333), December 16, 1760 (p.

333-335), March 20 1761 (p. 335), June 30, 1761 (p. 336), July 18, 1761 (p. 336), October 3, 1761 (p. 336-337), January 19, 1762 (p. 337-338), July 10, 1762 (p. 338-339), December 25, 1762 (p. 339-340), October 15, 1763 (p. 340), July 13, 1765 (p. 340). The originals of the letters are currently in the hands of Mr. Leonhard Weber in Kiel.

1856.

See 1744 (E74a), 1750 (E135b), 1767 (E325a), 1786 (E601a).

1857.

See 1743 (E58a).

1858.

See 1768 and 1772 (E343G^{9}, 344G^{9} 417G^{9}: English translation of the "Lettres à une princesse d'Allemagne")

1859.

See 1768 and 1772 (E343^{10}, 344^{10} 417^{10}: new edition of the "Lettres à une princesse d'Allemagne").

1860.

E804 [Two letters from L. Euler to G. B. Bülffinger, 1738.]

According to transcripts, it was published in *Briefen von Christian Wolff aus den Jahren 1719-1753*, St. Petersburg 1860, p. 232 (letter from July 10, 1738), p. 233-235 (letter from November 3, 1738).

1862.

E805 Leonhardi Euleri Opera postuma mathematica et physica anno MDCCCXLIV detecta quae academiae scientiarum Pertopolitanae obtulerunt ejusque auspiciis ediderunt auctoris pronepotes Paulus Henricus Fuss et Nicolaus Fuss. Tomus prior. – Tomus alter. Petropoli 1862.

Kgl. Library in Berlin.
Example used: G. E.
Large 4^{0}, 1: Picture (Euler) + X + 588 pages + 9 diagrams; 2: Picture (P. H. Fuss) + VIII + 826 pages + 25 diagrams. The treatises for both volumes are numbers E175b, 792a-799a, 806-856; also see 1762 (E268a), 1823 (E762a).

E806 Fragmenta arithmetica ex Adversariis mathematicis depromta.

Opera postuma 1, 1862, p. 157-266. From the time 1766-1783; by J. A. Euler, A. J. Lexell, N. Fuss, M. Golovin, W. L. Krefft and by L. Euler himself (especially p. 190-191, 197-201). Also see E819 and 856.

E807 Sur les logarithmes des nombres négatifs et imaginaires.

Opera postuma 1, 1862, p. 269-281. According to C. G. J. Jacobi, it was read to the Berlin Academy on September 7, 1747. The manuscript of the printed treatise can be found in the archive of the Berlin Academy.

E808 Problema algebraicum de inveniendis quatuor numeris, ex datis totidem productis uniuscujusque horum numerorum in summas trium reliquorum.

Opera postuma 1, 1862, p. 282-287.

E809 Series maxime idoneae pro circuli quadratura proxime invenienda.

The formula is $\arctan\frac{m}{n}=\frac{mn}{m^2+n^2}\left(1+\frac{2m^2}{3(m^2+n^2)}+\frac{2\cdot 4\cdot m^4}{3\cdot 5(m^2+n^2)^2}\cdots\right)$. Also see 1798 (E705).

Opera postuma 1, 1862, p. 288-298. The table of contents of the "Opera postuma" reads "investiganda."

E810 Enodatio insignis cujusdam paradoxi circa multiplicationem angulorum observati.

About the series for cos$n\varphi$, which proceeds by powers of cosφ.
Opera postuma 1, 1862, p. 299-314.

E811 Vera aestimatio sortis in ludis.

Opera postuma 1, 1862, p. 315-318.

E812 Réflexions sur un espèce singulière de loterie, nommée Loterie génoise.

Opera postuma 1, 1862, p. 319-335. According to C. G. J. Jacobi, it was read to the Berlin Academy on March 10, 1763.

E813 Analyse d'un problème du calcul des probabilités.

The probabilities of drawings out of an urn, where n different numbers are found.
Opera postuma 1, 1862, p. 336-341.

E814 Institutionum calculi differentialis Sectio III.

Application of differential calculus to geometry.
Opera postuma 1, 1862, p. 342-402.

E815 Problematis ex theoria maximorum et minimorum solutio.

The problem is: "Super recta *AB* constituere trangulum *AOB*, ut si ex dato puncto *V* in sublimi posito ducantur rectae *VA*, *VB* et *VO*, sit summa binorum triangulorum *AVO* + *BVO* minima."
Opera postuma 1, 1862, p. 403-407.

E816 Considérations sur quelques formules intégrales, dont les valeurs peuvent être exprimées, en certains cas, par la quadrature du cercle.

About the integral $\int_0^\infty \frac{x^{m-1}dx}{(1-x^n)^{\frac{m}{n}}}$ and similar integrals.
Opera postuma 1, 1862, p. 408-438.
Reprinted in *Bullet. d. sc. mathem*. 4_2, 1880, p. 207-256; p. 207: "Mémoire de Léonard Euler publié conformément au manuscrit autographe; par M. Charles Henry" [**E816a**].
The handwritten version is found in the National Library in Paris.

E817 De lineis curvis, quarum rectificatio per datam quadraturam mensuratur.

About properties of the elliptic integral.
Opera postuma 1, 1862, p. 439-451.

E818 De comparatione arcuum curvarum irrectificabilium.

Opera postuma 1, 1862, p. 452-486. Revision of three earlier treatises (see 1761, E261, 263, 264).

E819 Continuatio fragmentorum ex Adversariis mathematicis depromptorum.

Number theory, algebra, series, integrals, differential equations.
Opera postuma 1, 1862, p. 487-518. From the time of 1766-1783. By A. J. Lexell, J. A. Euler, N. Fuss, M. Golovin, W. L. Krafft. Also see E806 and 856.

E820 Sex litterae ad Nicolaum Bernoullium II (!), Basileensem, J. U. D. datae 1742 ad 1745.

Opera postuma 1, 1862, p. 519-549. The letters are dated January 16, 1742 (p. 519-521), September 1, 1742 (p. 521-527), November 10, 1742 (p. 528-536), May 14, 1743 (p. 536-538), February 4, 1744 (p. 538-541), July 17, 1745 (p. 545-549). Pages 542-545 contain a letter from N. Bernoulli to Euler from April 20, 1745 with postscript from May 1, 1745

E821 Duae litterae ad Fredericum II, Regem Borussorum, datae annis 1749 et 1763.

Opera postuma 1, 1862, p. 550-554. The first letter (p. 550-552) is written after September 15, 1749, the second (p. 553-554) is from August 1763.

E822 Octodecim litterae ad cel. Lagrange datae annis 1755 ad 1775.

Opera postuma 1, 1862, p. 555-588. The letters are dated: September 6, 1755 (p. 555-556), April 24, 1756 (p. 556-557), Spetmber 2, 1756 (p. 557), October 2, 1759 (p. 557-558), October 27, 1759 (p. 559-561), January 1, 1760 (p. 561), June 24, 1760 (p. 561-563), November 9, 1762 (p. 564-566), February 16, 1765 (p.566-567), May 3, 1766 (p. 567-568), January 9, 1767 (p. 568-569), February 5/16, 1768 (p. 569-570), January 16/27, 1770 (p. 571-573), March 9/20, 1770 (p. 574-577), May 20/31, 1771 (p. 577-578), September 24/October 5, 1773 (p. 583-585), January 1775 (p. 585), March 23, 1775 (p. 586-588); a letter from A. J. Lexell, dated March 5, 1772, is found on p. 579-582. The originals are found in the library of the Paris Academy of Science. The letter from May 3, 1766 was published earlier (see 1823 E762).
Reprinted along with letters from Lagrange to Euler in *Œuvres de Lagrange* 14, Paris 1892, p. 135-245 [**E822a**].

E823 Statica.

Opera Postuma 2, 1862, p. 3-38. Unfinished.

E824 Vera vires existimandi ratio.

Opera Postuma 2, 1862, p. 39-42. The beginning of the treatise indicates that it comes from the days of Euler's youth.

E825 De motu corporum circa punctum fixum mobilium.

Opera Postuma 2, 1862, p. 43-62. The introduction indicates that the treatise was written after 1751.

E826 De motu corporum super superficiebus mobilibus.

Opera Postuma 2, 1862, p. 63-73.

E827 De motu corporum in tubo rectilineo mobili circa axem fixum, per ipsum tubum transeuntem.

Opera Postuma 2, 1862, p. 74-84. Probably written around 1742 (see Fuss, *Corr.* II, p. 67).

E828 Dissertation sur le mouvement des corps enfermés dans un tube droit, mobile autour d'un axe fixe.

Opera Postuma 2, 1862, p. 85-113. Revision of the preceeding treatise, probably from the year 1743 (see the first part of the treatise as well as *Comment. acad. sc. Petrop*. 5, (1730/1), 1738, p. 11-25).

E829 De motu corporum in tubis circa punctum fixum mobilibus.

Opera Postuma 2, 1862, p. 114-124.

E830 Recensio litterarum a Cl. D. Bernoullio Basilea die 26 Oct. 1735 ad me datarum, una cum annotationibus meis.

About elastic disks.
Opera Postuma 2, 1862, p. 125-128. According to the records, it was presented to the St. Petersburg Academy on December 22, 1735.

E831 De oscillationibus annulorum elasticorum.

Opera Postuma 2, 1862, p. 129-131.

E832 Von der Kraft der Rammen, Pfähle einzuschlagen.

Opera Postuma 2, 1862, p. 132-145. According to the records, it was presented to the St. Petersburg Academy on May 18, 1772.

E833 Détermination de l'effet d'un machine hydraulique inventée par Mr. Segner, Prof. à Gottingue.

Opera Postuma 2, 1862, p. 146-173. According to C. G. J. Jacobi, it was read to the Berlin Academy on September 28, 1752; The manuscript of the printed treatise can be found in the archive of the Berlin Academy.

E834 Astronomia mechanica.

Opera Postuma 2, 1862, p. 177-316. Written in 1759 (see p. 294); a "Digrssio, qua effectus cometae a. 1759 expectati in motu terrae peturbando investigatur" is found at the end (p. 294-316).

E835 Solutio duorum problematum, Astronomiam mechanicam spectantium.

Opera Postuma 2, 1862, p. 317-332. Written after 1745 (see p. 324).

E836 Nouvelles tables astronomiques pour calculer la place du soliel.

Opera Postuma 2, 1862, p. 335-353. This treatise was read to the Berlin Academy on April 9, 1744, but only the abstract and the tables appeared in the *Hist. de l'acad. d. sc. de Berlin* [1], (1745), 1746, p. 36-40 + 1 table; the presentation date is found on p. 36 of the same [**E836a**].

E837 De emendatione tabularum lunarium per observationes eclipsium lunae.

Opera Postuma 2, 1862, p. 354-364.

E838 Tria Capita ex opere quodam majori inedito de theoria lunae.

Opera Postuma 2, 1862, p. 365-390.

E839 De atmosphaera lunae ex eclipsi solis annulari evicta.

Opera Postuma 2, 1862, p. 391-401. Written in 1748 (see p. 391); also see 1750 (E142).

E840 De motu cometarum in orbitis parabolicis, solem in foco habentibus.

Opera Postuma 2, 1862, p. 402-415.

E841 Recherche des inégalités causées au mouvement des planètes par des forces quelconques.

Opera Postuma 2, 1862, p. 416-446.

E842 Anleitung zur Natur-Lehre, worin die Gründe zu Erklärung aller in der Natur sich ereignenden Begebenheiten und Veränderungen festgesetzt werden.

Opera Postuma 2, 1862, p. 449-560. It is indicated in a passage on p. 493, in which Maupertuis is named, that this treatise is not written in 1731, as P. H. Fuss (*Commentat. arithm*. 1, p. XV) presumes, rather it was written in 1745 at the earliest.

E843 Constructio manometri densitatem aëris quovis tempore accurate monstrantis.

Opera Postuma 2, 1862, p. 561-566. According to the records, it was presented to the St. Petersburg Academy on November 20, 1780.

E844 Théorie générale de la dioptrique.

Opera Postuma 2, 1862, p. 567-604. Presumably the treatise on this subject, which was submitted to the Berlin Academy on November 7, 1765, according to C. G. J. Jacobi. Extract with the title: Théorie générale de la dioptrique, mémoire manuscrit de M. Euler, lu à l'assemblée de l'Académie des sciences de Berlin, du 13 Février 1766; *Journal encyclopédique* 1766: 3: 2, p. 22-39 [**E844a**].

E845 Sept chapitres d'un ouvrage de dioptrique.

Opera Postuma 2, 1862, p. 605-667. A note on p. 628 indicates that this treatise was written after 1759.

E846 Recherche pour servir à la perfection des lunettes.

Opera Postuma 2, 1862, p. 668-738. According to C. G. J. Jacobi, a treatise with this title was read to the Berlin Academy on June 26, 1755. The manuscript of the printed treatise can be found in the archive of the Berlin Academy.

E847 De amplificatione campi apparentis in telescopiis.

Opera Postuma 2, 1862, p. 739-754. A note on p. 740 indicates that this treatise was written after 1759.

E848 De la construction des microscopes.

Opera Postuma 2, 1862, p. 755-780.

E849 Réflexions sur la détermination de la déclinaison de la boussole.

Opera Postuma 2, 1862, p. 783-789.

E850 Recherches sur la découverte des courants de la mer.

Opera Postuma 2, 1862, p. 790-792. As indicated in the foreword, the essay was written in 1748; according to P. H. Fuss it is an incomplete answer to the Paris Academy's competition question for the year 1749 (Fuss's 1751 is a typographical error). (*Commentat. arithm*. 1, p. XVI).

E851 Recensio dissertationis de ventis.

Opera Postuma 2, 1862, p. 793-797. Written in 1746 (see Fuss, *Corr.* I, p. 378); it discusses the prize-winning essay of d'Alembert (Berlin 1747).

E852 Meditatio de formatione vocum.

Opera Postuma 2, 1862, p. 798-799.

E853 Meditatio in experimenta explosione tormentorum nuper instituta.

Opera Postuma 2, 1862, p. 800-804.

E854 Différentes pièces sur les monades.

Opera Postuma 2, 1862, p. 805-813. Written in 1747, see the letter from Euler to Goldbach on July 4, 1747 (Fuss, *Corr.* I, p. 425).

E855 Principia pro motu sanguinis per arterias determinando.

Opera Postuma 2, 1862, p. 814-823. According to the records, it was presented to the St. Petersburg Academy on December 21, 1775.

E856 Fragmentum ex Adversariis mathematicis depromtum.

About integration of certain differential equations which arise in mechanics.
Opera Postuma 2, 1862, p. 824-826. From the time of 1775-1779; edited by Fuss.
Also see E806 and 819.

Also see 1768 and 1772 ($E343^{11}$, 344^{11}, 417^{11}: new edition of the "Lettres à une princesse d'Allemagne"), 1823 (E762a); also the note to E805.

1865.

See 1739 (E33Aa: French translation of "Tentamen novae theoriae musicae"), 1766 (E314b, 315b), 1774 (E457Aa), 1839 ($E786_3^2$, 786_4^2, 786_5^2).

1866.

See 1768 and 1772 ($E343^{12}$, 344^{12}, 417^{12}: new edition of the "Lettres à une princesse d'Allemagne").

1868.

See 1765 (E292a).

1879.

See 1755 (E218b).

1880.

E857 [Extracts of letters from Euler to Johann Bernoulli I, 1729-1737.]

Published by G. Eneström in *Bihang till svenska vetenskaps-akademiens handlingar* 5, Number 21 (1880), p. 21 (letter from May 16, 1729), 22-23 (letter from July 11, 1730), 24 (letter from August 27, 1737), 23 (letter from December 10, 1737). Also see 1905 (E863).

Also see 1862 (E816a).

1883.

See 1770 ($E387^5$, 388^5: new edition of"Algebra").

1885.

See 1748 (E101B[3]: German translation of "Introductio in analysin infinitorum").

1886.

E858 [Six letters from Euler to J. d'Alembert, 1747-1749.]

Published by Ch. Henry in his article: "Lettres inédites d'Euler à d'Alembert"; *Bullett. di bibliogr. d. sc. matem*. 19, 1886, p. 136-148. The letters are dated: April 15, 1747 (p. 137-140), August 19, 1747 (p. 140-142), December 30, 1747 (p. 143), September 28, 1748 (p. 144-145), December 27, 1748 (p. 146-147), undated [1749] (p. 147-148). The originals are found in the library of the Paris Academy of Science.

1890.

E859 [Several lines of a letter from Euler to Johann Bernoulli I from August 27, 1737.]

Published by G. Eneström in *Bibl. math*. 1890, p. 23.
Also see 1905 (E863).

1891.

See 1794 (note to E660[2]: new edition of "Institutiones calculi integralis").

1892.

See 1762 (E268b), 1823 (E762b), 1862 (E822a).

1894.

See 1744 (E65A: German translation of "Methodus inveniendi lineas curvas maximi minimive proprietate gaudentes").

1895.

See 1770 (E385[4]: new edition of "Institutiones calculi integralis").

1896.

See 1755 (E214A), 1782 (E524A).

1897.

E860 [Fourteen letters from Euler to P. L. M. de Maupertuis, 1752-1759.]

Published by A. Le Sueur in *Maupertuis et ses correspondants*, (Paris 1897), p. 144-179. The letters are dated: March 31, 1752 (p. 144-145), February 18, 1753 (p. 145-146), September 3,

1757 (p. 146-149), December 24, 1757 (p. 149-155), September 16, 1758 (p. 155-158), October 14, 1758 (p. 158-161), November 4, 1758 (p. 161-163), November 25, 1758 (p. 164-165), December 16, 1758 (p. 165-167), January 2, 1759 (p. 167-169), January 30, 1759 (p. 169-172), February 17, 1759 (p. 172-174), March 20, 1759 (p. 174-177), June 9, 1759 (p. 177-179). The originals are found in the castle of Estouilly (dép. Somme).

E861 [Extracts of letters from Euler to Johann Bernoulli I, 1739-1740.]

Published by G. Eneström in *Bibl. math*. 1897, p. 43-44 (letter from September 15, 1739), 45-46 (letter from January 19, 1740), 47 (letter from June 20, 1740), 47-48 (letter from October 18, 1740).
Also see 1905 (E863).

1898.

See 1778 (490A, 491A, 492A).

1899.

E862 [Extracts of letters from Euler to Johann Bernoulli I, 1728-1729.]

Published by G. Eneström in *Bibl. math*. 1899, p. 46 (letter from December 10, 1728), 20 (letter from February 18, 1729), 23-24 (letter from May 16, 1729). Also see 1905 (E863).

1900.

See 1752 (E176a).

1903.

See 1905 (E863).

1904.

See 1905 (E863).

1905.

E863 [Seventeen letters from Euler to Johann Bernoulli I, 1727-1740.]

Published by G. Eneström in the three articles: "Der Briefwechsel zwischen Lenhard Euler und Johann I. Bernoulli. I – III"; *Bibl. math*. 4_3, 1903, p. 344-388; 5_3, 1904, p. 248-291; 6_3, 1905, p. 16-87. The letters are dated: November 5, 1727 (p. 346-349), December 10, 1728* (p. 352-354), February 18, 1729* (p. 354-358), May 16, 1729* (p. 365-371), October 21, 1729 (p. 371-374), July 11, 1730* (p. 379-383), May 25, 1731 (p. 383-386), August 27, 1737* (p. 255-262), December 10, 1737* (p. 268-271), April 26, 1738 (p. 271-275), July 30, 1738 (p. 276-285), December 20, 1738 (p. 285-291), May 5, 1739 (p. 24-33), September 15, 1739* (p. 33-38), January 19, 1740* (p. 43-52), June 20, 1740* (p. 62-67), October 18, 1740* (p. 73-77). The

originals are in the library of the Swedish Academy of Science in Stockholm. The letters whose dates are marked with a *, had extracts published earlier (see 1743 E64, 1880 E857, 1890 E859, 1897 E861, 1899 E862).

1906.

E864 [Three Letters from Euler to Daniel Bernoulli, 1734-1740.]

Published by G. Eneström in the article: "Der Briefwechsel zwischen Lenhard Euler und Daniel Bernoulli"; *Bibl. math.* 7_3, 1906/7, p. 126-156. The letters are dated: February 16[15], 1734 (p. 134-137), November (?) 1734 (p. 137-141), September 15, 1740 (p. 145-153). The originals are found in the Herzoglichen Library in Gotha.

Also see 1750 (E152A), 1849 (E796b).

1907.

See 1750 (E152A), 1849 (E796b); also 1906 (E864).

1908.

E865 [Several lines of a letter from Euler to the "Royal Society" dated October 21/November 1, 1768.]

About Dioptrics and the moon theory.
Published in the work of A. H. Church: *The Royal Society. Some accounts of the letters and papers of the period 1741-1806 in the archives*, Oxford 1908, p. 16. The content of this letter is identical to E364 (1768).

Also see 1743 (E63a).

1910.

See 1744 in the supplement ($E65A_1$).

1911[16].

E866 [Letter from Euler to J. d'Alembert from February 15, 1748.]

Published by P. Stäckel in the article: "Ein Brief Eulers an d'Alembert"; *Bibl. math*. 11_3, 1910/11, p. 223-226. The letter is in the posession of Mr. G. Lessing in Berlin.

Also see 1756 (E222A) in the supplement.

[15] P. 134 reads "18. Februar" because of a typographical error.
[16] The volume of the *Opera omnia Leonhardi Euleri* appearing in 1911-1912 is not listed in this index.