

Chronological Listing of Euler's  
Mathematical Papers  
and Tables of Contents of  
His Mathematics Books in  
Leonhardi Euleri, Opera Omnia  
Series Prima: Opera Mathematica

Compiled by

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3. Methodus inveniendi trajectorias reciprocas algebraicas, Acta Eruditorum 1727 pp.408–412; I27, 1–5.
5. Problematis trajectoriarum reciprocarum solutio, Commentarii academiae scientiarum Petropolitanae **2** (1727), 1729, pp.90–111; I27, 6–23.
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- Eine vergessene Abhandlung Leonhard Eulers über die Summe der reziproken Quadrate der natürlichen Zahlen von Paul Stäckel, *Bibliotheca Mathematica*, **8**<sub>3</sub>, 1907–1908, pp. 37–54; **I14**, 156–176.
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75. *Solutio problematis in Novorum Actorum Eruditorum mense novembri A. 1743 propositi*, *Nova acta eruditorum*, 1744, pp. 315–336; I 27, 29–49.
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$$\frac{mdx}{\sqrt{1-x^4}} = \frac{ndy}{\sqrt{1-y^4}}$$

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274. Constructio aequationis differentio - differentialis

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sumto elemento  $du$  constante, Nova commentarii academiae scientiarum Petropolitanae **8** (1760/1), 1763, pp.150–156; **I22**, 395–402.

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298. De insigni promotione methodi tangentium inversae, Nova commentarii academiae scientiarum Petropolitanae **10** (1764), 1766, pp.135–155; **I27**, 365–383.
300. Demonstratio theorematis Bernoulliani quod ex evolutione curvae cuiuscunque rectangulae in infinitum continuata tandem cycloides nascantur, Nova commentarii academiae scientiarum Petropolitanae **10** (1764), 1766, pp.179–198; **I27**, 384–400.
309. Solution d'une question curieuse qui ne paroît soumise à aucune analyse, Mémoires de l'académie des sciences de Berlin [15] (1759) 1766, pp. 310–337; Commentationes arithmeticae, **1**, 1849, pp.337–355; **I7**, 26–56.
310. Nouvelle méthode d'éliminer les quantités inconnues des équations, Nouveaux mémoires de l'académie des sciences de Berlin [20] (1764), 1766, pp. 91–104; **I6**, 197–211.
313. Sur l'avantage du banquier au jeu de Pharaon, Mémoires de l'académie des sciences de Berlin [20] (1764) 1766, pp. 144–164; **I7**, 57–78.
319. Recherches sur l'integration de l'équation

$$\frac{ddz}{dt^2} = aa \left( \frac{ddz}{dx^2} \right) + \frac{b}{x} \left( \frac{dz}{dx} \right) + \frac{c}{xx} z,$$

Mélanges de philosophie et de mathématique de la société royal de Turin **8** (1762/5) 1766, pp.60–91; **I23**, 74–91.

321. Observationes circa integralia formularum  $\int x^{p-1} dx (1-x^n)^{\frac{q}{n}-1}$  posito post integrationem  $x = 1$ , Mélanges de philosophie et de mathématique de la société royale de Turin **3**<sub>2</sub> (1762/5) 1766, pp. 156–177; I17, 268–288.
322. De usu functionum discontinuarum in analysi, Nova commentarii academiae scientiarum Petropolitanae **11** (1765), 1767, pp.67–102; I23, 74–91.
323. De usu algorithmi in problemate Pelliano solvendo, Nova commentarii academiae scientiarum Petropolitanae **11** (1765), 1767, pp.28–66; I3, 73–111.
324. Proprietates triangulorum, quorum anguli certam inter se tenent rationem, Nova commentarii academiae scientiarum Petropolitanae **11** (1765), 1767, pp.67–102; I26, 109–138.
325. Solutio facilis problematum quorundam geometricorum difficillimorum, Nova commentarii academiae scientiarum Petropolitanae **11** (1765), 1767, pp.103–123; I26, 139–157.
326. Observationes analyticae, Nova commentarii academiae scientiarum Petropolitanae **11** (1765), 1767, pp.124–143; I15, 50–69.
333. Recherches sur la courbure de surfaces, Mémoires de l'académie des sciences de St. Pétersbourg **16** (1760), 1767, pp.119–143; I28, 1–22.
334. Recherches générales sur la mortalité et la multiplication du genre humain, Mémoires de l'académie des sciences de Berlin [16] (1760) 1767, pp. 144–164; I7, 79–100.
335. Sur les rente viagères, Mémoires de l'académie des sciences de Berlin [16] (1760) 1767, pp. 165–175; I7, 101–112.
338. Sur la probabilité des séquences dans la lotterie Génoise, Mémoires de l'académie des sciences de Berlin [21] (1765) 1767, pp. 191–230; I7, 113–152.
345. Integratio aequationis

$$\frac{dx}{\sqrt{A + Bx + Cx^2 + Dx^3 + Ex^4}} = \frac{dy}{\sqrt{A + By + Cy^2 + Dy^3 + Ey^4}}$$

Nova commentarii academiae scientiarum Petropolitanae **12** (1766/7), 1768, pp.3–16; I20, 302–317.

346. De arcibus curvarum aequae amplis earumque comparatione, Nova commentarii academiae scientiarum Petropolitanae **12** (1766/7), 1768, pp.17–41; I28, 23–40.

347. Evolutio generalior formularum comparationi curvarum inservientium, Nova commentarii academiae scientiarum Petropolitanae **12** (1766/7), 1768, pp.42–86; I20, 318–356.
352. Remarques sur un beau rapport entre les séries des puissances tant directes que réciproques, Mémoires de l'académie des sciences de Berlin [17] (1761) 1768, pp. 83–106; I15, 71–90.
368. De curva hypergeometrica hac aequatione expressa

$$y = 1 \cdot 2 \cdot 3 \cdots x,$$

Nova commentarii academiae scientiarum Petropolitanae **13** (1768), 1769, pp.3-66; I28, 41–98.

369. Quomodo numeri praemagni sint explorandi, utrum sint primi necne, Nova commentarii academiae scientiarum Petropolitanae **13** (1768), 1769, pp.67–88; I3, 112–130.
370. Nova criteria radices aequationes imaginairas dignoscendi, Nova commentarii academiae scientiarum Petropolitanae **13** (1768), 1769, pp.89–119; I6, 212–239.
390. Considerationes de triectoriis orthogonalibus, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.104–128; I28, 99–119.
391. De formulis integralibus duplicatis, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.72–103; I17, 289–315.
392. Evolutio insignis paradoxo circa aequalitatem superficierum, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.46–71; I28, 120–141.
393. De summis serierum numeros Bernoullianos involventium, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.129–167; I15, 91–130.
394. De partitione numerorum in partes tam numero quam specie datas, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.168–187; I3, 131–147.
395. De inventione quotcumque mediarum proportionalium citra radicem extractionem, Nova commentarii academiae scientiarum Petropolitanae **14** (1769), :I,1770, pp.188–214; I6, 240–262.

403. Des Herrn Leonhard Eulers nöthige Berechnung zur Einrichtung einer Witwencasse, Neues Hamburgischen Magazin, Drey und vierzigstes Stück, Leipzig, 1770, pp. 3–13; I7, 153–161.
405. Solutio problematis, quo duo quaeruntur numeri, quorum productum tam summa quam differentia eorum sive auctum sive minutum fiat quadratum, Nova commentarii academiae scientiarum Petropolitanae **15** (1770), 1771, pp.29–50; I3, 148–171.
406. Observationes circa radices aequationum, Nova commentarii academiae scientiarum Petropolitanae **15** (1770), 1771, pp.51–74; I6, 263–286.
407. Problema algebraicum ob affectiones prorsus singulares memorabile, Nova commentarii academiae scientiarum Petropolitanae **15** (1770), 1771, pp.75–106; I6, 287–315.
408. De curva rectificabili in superficiae sphaerica, Nova commentarii academiae scientiarum Petropolitanae **15** (1770), 1771, pp.195–216; I28, 142–160.
412. Solution d'une question très difficile dans le calcul des probabilités, Mémoires de l'académie des sciences de Berlin [25] (1769) 1771, pp. 285–302; I7, 162–180.
419. De solidis quorum superficiem in planum explicare licet, Nova commentarii academiae scientiarum Petropolitanae **16** (1771), 1772, pp.3–34; I28, 161–186.
420. Methodus nova et facilis calculum variationem tractandi, Nova commentarii academiae scientiarum Petropolitanae **16** (1771), 1772, pp.35–70; I25, 208–235.
421. Evolutio formulae integralis  $\int x^{f-1} dx (\ell x)^{\frac{m}{n}}$  integratione a valore  $x = 0$  ad  $x = 1$  extensa, Nova commentarii academiae scientiarum Petropolitanae **16** (1771), 1772, pp.91–139; I17, 316–357.
422. Problematis cuiusdam geometrici prorsus singularis evolutio, Nova commentarii academiae scientiarum Petropolitanae **16** (1771), 1772, pp.140–159; I28, 187–204.
423. Considerationes cyclometricae, Nova commentarii academiae scientiarum Petropolitanae **16** (1771), 1772, pp.160–170; I28, 205–214.
427. Problematis cuiusdam Diophantei evolutio, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.24–63; I3, 172–210.

428. Observationes circa bina biquadrata, quorum summam in duo alia biquadrata resolvere liceat, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.64–69; **I3**, 211–217.

429. De variis integrabilitatis generibus, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.70–104; **I23**, 92–121.

430. Observationes circa aequationem differentialem

$$ydy + Mydx + Ndx = 0$$

Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.105–124; **I23**, 122–141.

431. Consideratio aequationis differentio - differentialis

$$(a + bx)ddz + (c + ex)\frac{dxdz}{x} + (f + gx)\frac{zdx^2}{xx} = 0,$$

Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.125–154; **I23**, 142–173.

432. Exercitationes analyticae, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.173–204; **I15**, 131–167.

433. Degressio de trajectoriis tam orthogonalibus quam obliquangulis, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.205–248; **I28**, 215–247.

444. De motu gravium citissimo super curvis specie datis, Nova commentarii academiae scientiarum Petropolitanae **17** (1772), 1773, pp.488–504; **I25**, 236–249.

445. Nova demonstrationes circa resolutionem numerorum in quadrata, Nova acta eruditorum, 1773, pp. 193–211; Acta academiae scientiarum Petropolitanae, 1777:II, 1780, pp.48–69; **I3**, 218–239.

447. Summatio progressionum

$$\begin{aligned} & \sin \varphi^\lambda + \sin 2\varphi^\lambda + \sin 3\varphi^\lambda + \cdots + \sin n\varphi^\lambda, \\ & \cos \varphi^\lambda + \cos 2\varphi^\lambda + \cos 3\varphi^\lambda + \cdots + \cos n\varphi^\lambda, \end{aligned}$$

Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.24–36; **I15**, 168–184.

448. Nova series infinita maxime convergens perimetrum ellipsis exprimens, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.85–135; **I20**, 357–370.
449. Demonstrationes circa residua ex divisione potestatum per numeros primos resultantia, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.85–135; **I3**, 240–281.
450. Nova ratio quantitates irrationales proxime exprimendi, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.136–170; **I6**, 316–349.
451. Solutio problematis de inveniendi triangulo, in quo rectae ex singulis angulis latera opposita bisecantes sint rationales, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.171–184; **I3**, 282–296.
452. Resolutio aequationis  $Ax^2 + 2Bxy + Cy^2 + 2Dx + 2Ey + F = 0$  per numeros tam rationales quam integros, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.185–197; **I3**, 297–309.
453. Insignes proprietates serierum sub hoc termino generali contentarum

$$x = \frac{1}{2} \left( a + \frac{b}{\sqrt{k}} \right) (p + q\sqrt{k})^n + \frac{1}{2} \left( a - \frac{b}{\sqrt{k}} \right) (p - q\sqrt{k})^n$$

Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.198–217; **I3**, 185–206.

454. De resolutione irrationalium per fractiones continuas, ubi simul nova quaedam et singularis species minimi exponitur, Nova commentarii academiae scientiarum Petropolitanae **18** (1773), 1774, pp.218–244; **I3**, 310–334.
461. Extrait d'une lettre de M. Euler le père à M. Bernoulli concernant le mémoire imprimé parmi ceux de 1771 p.318, Nouveaux mémoires de l'académie des sciences de Berlin 1772, 1774, Histoire, pp. 35–36; **I3**, 335–337.
462. De valore formulae integralis

$$\int \frac{z^{m-1} \pm z^{n-m-1}}{1 \pm z^n} dz$$

casu, quo post integrationem ponitur  $z = 1$ , Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.3–29; **I17**, 358–383.

463. De valore formulae integralis

$$\int \frac{z^{\lambda-\omega} \pm z^{\lambda+\omega}}{1 \pm z^{2\lambda}} \cdot \frac{dz}{z} (\ell z)^\mu$$

casu, quo post integrationem ponitur  $z = 1$ , Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.30–65; I17, 384–420.

464. Nova methodus quantitates integrales determinandi, Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.66–102; I17, 421–457.

465. Demonstratio theorematis Neutoniani de evolutione potestatum binomii pro casibus, quibus exponentes non sunt numeri integri, Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.103–111; I15, 207–216.

466. Problema Diophanteum singulare, Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.112–131; I3, 338–358.

467. De tabula numerorum primorum usque ad millionem et ultra continuanda, in qua simul omnium numerorum non primorum minimi divisores exprimentur, Nova commentarii academiae scientiarum Petropolitanae **19** (1774), 1775, pp.132–183; I3, 359–404.

473. Éclaircissemens sur les établissemnes publics en faveur tant des veuves que des morts, avec la description d'une nouvelle espece de Tontine aussi favorable au Public qu'utile à l'État. Calculés sous la direction de Monsieur Léonard Euler. Par Mr. Nicolas Fuss, Adjoint de l'Académie impériale des Sciences. St Petersburg [1776], I7, 181–245.

474. Solutio quorundam problematum Diophanteorum, Nova commentarii academiae scientiarum Petropolitanae **20** (1775), 1776, pp.48–58; I3, 405–417.

475. Speculationes analyticae, Nova commentarii academiae scientiarum Petropolitanae **20** (1775), 1776, pp.59–75; I18, 1–22.

476. Observationes circa novum et singulare progressiojnum genus, Nova commentarii academiae scientiarum Petropolitanae **20** (1775), 1776, pp.123–139; I7, 246–261.

- Diiudicatio maxime probabilis plurium observationum discrepantium atque verisimillima inductio inde formanda. Auctor D. Bernoulli, Acta academiae scientiarum Petropolitanae, (1777:I), 1778, pp. 3–23; I7, 262–279.

477. Meditationes circa singulare serierum genus, Nova commentarii academiae scientiarum Petropolitanae **20** (1775), 1776, pp.140–186; I15, 217–267.
488. Observationes in pracedentem dissertationem illustris Bernoulli, Acta academiae scientiarum Petropolitanae, (1777:I), 1778, pp. 24–33; I7, 280–290.
489. De formulis exponentialibus replicatis, Acta academiae scientiarum Petropolitanae, **1 I** (1777:I), 1778, pp. 38–60; I15, 268–297.
490. De repraesentatione superficiei sphaericae super plano, Acta academiae scientiarum Petropolitanae, **I** (1777:I), 1778, pp. 38–60; I28, 248–275.
491. De projectione geographica superficiei sphaericae, Acta academiae scientiarum Petropolitanae, **I** (1777:I), 1778, pp. 133–142; I28, 276–287.
492. De projectione geographica de Lisliana in mappa general imperii russici usitata, Acta academiae scientiarum Petropolitanae, **I** (1777:I), 1778, pp. 143–153; I28, 288–297.
498. Extrait d'une lettre M. Euler à M. Beguelin en mai 1778, Nouveaux mémoires de l'académie des sciences de Berlin 1776, 1779, pp. 337–339; I3, 418–420.
499. De integratione formulae

$$\int \frac{dx \ell x}{\sqrt{1 - xx}}$$

ab  $x = 0$  ad  $x = 1$  extensa, Acta academiae scientiarum Petropolitanae, 1777:II (1780), pp. 3–28; I18, 23–50.

500. De valore formulae integralis

$$\int \frac{x^{a-1} dx}{\ell x} \cdot \frac{(1 - x^b)(1 - x^c)}{1 - x^n}$$

a termino  $x = 0$  usque ad  $x = 1$  extensae, Acta academiae scientiarum Petropolitanae, (1777:II), 1780, pp. 29–47; I18, 51–69.

501. Considerationes circa brachystochronas, Acta academiae scientiarum Petropolitanae, (1777:II), 1780, pp. 70–88; I25, 250–268.
505. De corporibus regularibus per doctrinam sphaericam determinatis; ubi simul nova methodus globos sive coelestes sive terrestres charta obducendi traditur, Acta academiae scientiarum Petropolitanae, **2** (1778:I), 1780, pp. 3–19; I26, 189–203.

506. Dilucidationes super methodo elegantissima, qua illustris de La Grange usus est in integranda aequatione differentiali

$$\frac{dx}{\sqrt{X}} = \frac{dy}{\sqrt{Y}}$$

Acta academiae scientiarum Petropolitanae, **2 I** (1778:I), 1780, pp. 20–57; I21, 1–38.

507. De infinitis infinitis gradibus tam infinite magnorum quam infinite parvorum, Acta academiae scientiarum Petropolitanae, **2 I** (1778:I), 1780, pp. 102–118; I15, 298–313.
513. De curvis triangularibus, Acta academiae scientiarum Petropolitanae, **2 I** (1778:II), 1781, pp. 3–30; I28, 298–321.
514. De mensura angulorum solidorum, Acta academiae scientiarum Petropolitanae, **2 I** (1778:II), 1781, pp. 31–54; I26, 204–223.
515. De casibus quibusdam maxime memorabilibus in analysi indeterminata, ubi imprimis insignis usus calculi angulorum in analysi Diophantea ostenditur, Acta academiae scientiarum Petropolitanae, **2** (1778:II), 1781, pp. 85–110; I3, 429–452.
521. Théorèmes analytiques. Extraits de différentes lettres de M. Euler à M. le Marquis de Condorcet, Mémoires de l'académie des sciences de St. Pétersbourg **1778**, 1781, pp.603–614; I18, 69–82.
522. De formatione fractionum continuarum, Acta academiae scientiarum Petropolitanae, **3 I** (1779:I), 1782, pp. 3–29; I15, 314–337.
523. De tribus numeris quadratis, quorum tam summa quam summa productorum ex binis sit quadratum, Acta academiae scientiarum Petropolitanae, **3 I** (1779:I), 1782, pp. 30–39; I3, 453–462.
524. Trigonometrica sphaerica universa, ex primis principiis breviter et dilucide derivata, Acta academiae scientiarum Petropolitanae, **3 I** (1779:I), 1782, pp. 72–86; I26, 224–236.
530. Recherches sur une nouvelle espèce de quarrés magiques, Verhandelingen uitgegeven door het zeeuwsch Genoostschap der Wetenschappen te Vlissingen **9**, Middelburg 1782, pp. 85–139; ca 21849302–361 I7, 291–393.
532. De serie Lambertina plurimisque eius insignibus proprietatibus, Acta academiae scientiarum Petropolitanae, (1779:II), 1783, pp. 29–51; I6, 350–369.

539. Supplementum calculi integralis pro integratione formularum irrationalium, Acta academiae scientiarum Petropolitanae, (1780:I), 1783, pp. 3–31; I18, 83–112.
540. Nova methodus fractiones quascumque racionales in fractiones simplices resolvendi, Acta academiae scientiarum Petropolitanae, (1780:I), 1783, pp. 32–46; I6, 370–383.
541. Evolutio producti infiniti  $(1 - x)(1 - x^2)(1 - x^3)(1 - x^4)(1 - x^5)(1 - x^6)$  etc. in seriem simplicem, Acta academiae scientiarum Petropolitanae, (1780:I), 1783, pp. 47–55; I3, 472–479.
542. De mirabilibus proprietatibus numerorum pentagonalium, Acta academiae scientiarum Petropolitanae, 4 I (1780:I), 1783, pp. 56–75; I3, 480–496.
543. Problematis cuiusdam Pappi Alexandrini constructio, Acta academiae scientiarum Petropolitanae, 4 I (1780:I), 1783, pp. 91–96; I26, 237–242.
550. De seriebus, in quibus producta ex binis terminis contiguus datam constituunt progressionem, Opuscula analytica 1, 1783, pp. 3–47; I15, 338–382.
551. Varia artificia in serierum indolem inquirendi, Opuscula analytica 1, 1783, pp. 48–63; I15, 383–399.
552. Observationes circa divisionem quadratorum per numeros primos, Opuscula analytica 1, 1783, pp. 64–84; I3, 497–512.
553. Observationes analyticae, Opuscula analytica 1, 1783, pp. 85–120; I15, 400–434.
554. Disquisitio accuratior circa residua ex divisione quadratorum altiorumque potestatum per numeros primos relictas, Opuscula analytica 1, 1783, pp. 121–156; I3, 513–543.
555. De eximio usu methodi interpolationum in serierum doctrina, Opuscula analytica 1, 1783, pp. 157–210; I15, 435–497.
556. De criteriis aequationis  $fx + gyy = hzz$ , utrum ea resolutionem admittat necne? Opuscula analytica 1, 1783, pp. 211–241; I4, 1–24.
557. De quibusdam eximiis proprietatibus circa divisores potestatum occurrentibus, Opuscula analytica 1, 1783, pp. 242–295; I4, 25–64.

558. Proposita quacunq̄ue progressionē ab unitate incipiente, quaeritur, quot eius terminos ad minimum addi oporteat, ut omnes numeri producantur, *Opuscula analytica* **1**, 1783, pp. 296–309; **I4**, 65–75.
559. Nova subsidia pro resolutione formulae  $axx + 1 = yy$ , *Opuscula analytica* **1**, 1783, pp. 310–328; **I4**, 76–90.
560. Miscellanea analytica, *Opuscula analytica* **1**, 1783, pp. 329–344; **I4**, 91–104.
561. Varias observationes circa angulos in progressionē geometrica progredientes, *Opuscula analytica* **1**, 1783, pp. 345–352; **I15**, 498–508.
562. quomodo sinus et cosinus angulorum multiploꝝ per producta exprimi queant, *Opuscula analytica* **1**, 1783, pp. 353–363; **I15**, 509–521.
563. De ellipsi minima dato parallelogrammo rectangulo circumscribenda, *Acta academiae scientiarum Petropolitanae*, **4 II** (1780:II), 1784, pp. 3–17; **I28**, 322–335.
564. Speculationes circa quasdam insignes proprietates numerorum, *Acta academiae scientiarum Petropolitanae*, **4 II** (1780:II), 1784, pp. 18–30; **I4**, 105–115.
565. De plurimis quantitibus transcendentibus, quas nullo modo per formulas integrales exprimere licet, *Acta academiae scientiarum Petropolitanae*, **4 II** (1780:II), 1784, pp. 31–37; **I15**, 522–527.
566. De inductione ad plenam certitudinem evehenda, *Acta academiae scientiarum Petropolitanae*, **4 II** (1780:II), 1784, pp. 38–48; **I4**, 116–124.
572. Nova methodus integrandi formulas differentiales racionales sine subsidio quantitatum imaginariarum, *Acta academiae scientiarum Petropolitanae*, **5 I** (1781:I), 1784, pp. 3–47; **I18**, 113–155.
573. De duplici genesi tam epicyloidum quam hypocycloidum, *Acta academiae scientiarum Petropolitanae*, **5 I** (1781:I), 1784, pp. 48–59; **I26**, 249–258.
574. De curvis rectificabilibus in superficie conii recti ducendis, *Acta academiae scientiarum Petropolitanae*, **5 I** (1781:I), 1784, pp. 60–73; **I28**, 336–347.
575. De mirabilibus proprietatibus unciarum, quae in evolutione binomii ad potestatem quamcunq̄ue evecti occurrunt, *Acta academiae scientiarum Petropolitanae*, **5 I** (1781:I), 1784, pp. 74–111; **I15**, 528–568.

581. Plenior explicatio circa comparationem quantitatum in formula integrali

$$\int \frac{Zdz}{\sqrt{1 + mzz + nz^4}}$$

contentarum denotante  $Z$  functionem quamcunque rationalem ipsius  $zz$ , Acta academiae scientiarum Petropolitanae, 1781:II (1785), pp. 3–22; I21, 39–56.

582. Uberior evolutio comparationis, quam inter arcus sectionum conicarum instituere licet, Acta academiae scientiarum Petropolitanae, **5 II** (1781:II), 1784, pp. 23–44; I21, 57–77.
583. De numero memorabili in summatione progressionis harmonicae naturalis occurrente, Acta academiae scientiarum Petropolitanae, **5 II** (1781:II), 1784, pp. 45–75; I15, 569–603.
584. De insignibus proprietatibus unciarum binomii ad uncias quorumvis polynomiorum extensis, Acta academiae scientiarum Petropolitanae, **5 II** (1781:II), 1784, pp. 76–89; I15, 604–620.

586. Considerationes super theoremate Fermatiano de resolutione numerorum in numeros polygonales, Opuscula analytica **2**, 1785, pp. 3–15; I4, 125–135.

587. Observationes in aliquot theoremata illustrissimi de La Grange, Opuscula analytica **2**, 1785, pp. 16–41; I18, 156–177.

588. Investigatio formulae integralis

$$\int \frac{x^{m-1}dx}{(1+x^k)^n}$$

casu, quo post integrationem statuitur  $x = \infty$ , Opuscula analytica **2**, 1785, pp. 42–54; I18, 178–189.

589. 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, pp. 55–75; I18, 190–208.

590. Theoremata quaedam analytica, quorum demonstratio adhuc desideratur, Opuscula analytica **2**, 1785, pp. 76–90; I21, 78–90.

591. De relatione inter ternas pluresve quantitates instituenda, *Opuscula analytica* **2**, 1785, pp. 91–101; **I4**, 136–145.
592. De resolutione fractionum transcendentium in infinitas fractiones simplices, *Opuscula analytica* **2**, 1785, pp. 102–137; **I15**, 621–660.
593. De transformatione serierum in fractiones continuas, ubi simul haec theoria non mediocriter amplificatur, *Opuscula analytica* **2**, 1785, pp. 138–177; **I15**, 661–700.
594. Methodus inveniendi formulas integrales, quae certis casibus datam inter se teneant rationem, ubi simul methodus traditur fractiones continuas summandi, *Opuscula analytica* **2**, 1785, pp. 178–216; **I18**, 209–243.
595. Summatio fractionis continuae cuius indices progressionem arithmeticam constituunt dum numeratores omnes sunt unitates ubi simul resolutio aequationis Riccatianae per huiusmodi fractiones docetur, *Opuscula analytica* **2**, 1785, pp. 217–239; **I23**, 174–194.
596. De summa seriei ex numeri primis formatae
- $$\frac{1}{3} - \frac{1}{5} + \frac{1}{7} + \frac{1}{11} - \frac{1}{13} - \frac{1}{17} + \frac{1}{19} + \frac{1}{23} - \frac{1}{29} + \frac{1}{31} - \text{etc.}$$
- ubi numeri primi formae  $4n - 1$  habent signum positium, formae autem  $4n + 1$  signum negativum, *Opuscula analytica* **2**, 1785, pp. 240–256; **I4**, 146–162.
597. De seriebus potestatum reciprocis methodo nova et facillima summandis, *Opuscula analytica* **2**, 1785, pp. 257–274; **I15**, 701–722.
598. De insigni promotione scientiae numerorum, *Opuscula analytica* **2**, 1785, pp. 275–314; **I4**, 163–196.
599. Solutio quaestionis ad calculum probabilitatis pertinentis: Quantum duo coniuges persolvere debeant, ut suis haeredibus post utriusque mortem certa argenti summa persolvatur, *Opuscula analytica* **2**, 1785, pp. 315–330; **I7**, 393–407.
600. Solutio quarundam quaestionum difficiliorum in calculo probabiliu, *Opuscula analytica* **2**, 1785, pp. 331–346; **I7**, 408–424.
601. De symptomatibus quatuor punctorum, in eodem plano sitorum, *Acta academiae scientiarum Petropolitanae*, **6 I** (1782:II), 1786, pp. 3–18; **I26**, 258–271.

602. Methodus facilis omnia symptomata linearum curvarum non in eodem plano sitarum investigandi, Acta academiae scientiarum Petropolitanae, **6 I** (1782:II), 1786, pp. 19–57; I28, 348–381.

604. De traiectionibus reciprocis tam rectangulis quam obliquangulis, Acta academiae scientiarum Petropolitanae, **6 I** (1782:II), 1786, pp. 1–27; I29, 1–27.

605. De miris proprietatibus curvae elasticae sub aequatione

$$y = \int \frac{xxdx}{\sqrt{1-x^4}}$$

contentae, Acta academiae scientiarum Petropolitanae, **6 I** (1782:II), 1786, pp. 34–61; I21, 91–118.

606. Speculationes super formula integrali

$$\int \frac{x^n dx}{\sqrt{aa - 2bx + cxx}},$$

ubi simul egregiae observationes circa fractiones continuas occurrunt, Acta academiae scientiarum Petropolitanae, 1782:II (1786), pp. 62–84; I18, 244–264.

609. Considerationes super traiectionibus tam rectangulis quam obliquangulis, Nova acta academiae scientiarum Petropolitanae **1** (1783), 1787, pp.3–46; I29, 28–71.

610. Novae demonstrationes circa divsiores numerorum formae  $xx + nyy$ , Nova acta academiae scientiarum Petropolitanae **1** (1783), 1787, pp.47–74; I4, 197–220.

611. Inverstigatio curvarum quae similes sint suis evolutis vel primis vel secundis vel tertiis vel adeo ordinis cuiuscunque, Nova acta academiae scientiarum Petropolitanae **1** (1783), 1787, pp.75–116; I29, 73–111.

613. Dilucidationes in capita postrema calculi mei differentialis de functionibus inexplicabilibus, Mémoires de l'académie des sciences de St. Pétersbourg **4**, 1813, pp.88–119; I16, part 1, 1–34.

616. De transformatione seriei divergentis

$$1 - mx + m(m+n)x^2 - m(m+n)(m+2n)x^3 + m(m+n)(m+2n)(m+3n)x^4 - \text{etc.}$$

in fractionem continuam, Nova acta academiae scientiarum Petropolitanae **2** (1784), 1788, pp.36–45; I16, part 1, 34–46.

617. De summatione serierum, in quibus terminorum signa alternantur, Nova acta academiae scientiarum Petropolitanae **2** (1784), 1788, pp.46–69; I16, part 1, 47–78.

620. Methodus facilis inveniendi integrale huius formulae

$$\int \frac{\partial x}{x} \cdot \frac{x^{n+p} - 2x^n \cos \zeta + x^{n-p}}{x^{2n} - 2x^n \cos \theta + 1}$$

casu, quo post integrationem ponitur vel  $x = 1$  vel  $x = \infty$ , Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.3–24; I18, 265–290.

621. De summo usu calculi imaginariorum in analysi, Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.25–46; I18, 291–317.

622. Specimen singulare analyseos infinitorum indeterminatae, Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.47–56; I23, 195–207.

623. De lineis rectificabilibus in superficie sphaeroidica quacunq̄ue geometrice ducendis, Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.57–68; I29, 112–125.

624. De superficie conii scaleni, ubi imprimis ingentes difficultates, quae in hac investigatione occurrunt, perpenduntur, Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.69–89; I21, 119–141.

628. Éclaircissemens sur le mémoire de Mr. de la Grange inséré dans le V<sup>e</sup>. volume de Mélanges de Turin, concernant la méthode de prendre le milieu entre les résultats de plusieurs observations etc. Nova acta academiae scientiarum Petropolitanae **3** (1785), 1788, pp.289–297; I7, 425–434.

629. Evolutio formulae integralis

$$\int \partial x \left( \frac{1}{1-x} + \frac{1}{\ell x} \right)$$

a termino  $x = 0$  usque ad  $x = 1$  extensae, Nova acta academiae scientiarum Petropolitanae **4** (1786), 1789, pp.3–16; I18, 318–334.

630. Ueberior explicatio methodi singularis nuper expositae integralia alias maxime abscondita investigandi, Nova acta academiae scientiarum Petropolitanae **4** (1786), 1789, pp.17–54; I18, 335–372.

631. 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, Nova acta academiae scientiarum Petropolitanae **4** (1786), 1789, pp.55–73; I6, 384–404.
632. De innumeris generibus serierum maxime memorabilium, quibus omnium aequationum algebraicarum non solum radices ipsae sed etiam quaecumque earum potestates exprimi possunt, Nova acta academiae scientiarum Petropolitanae **4** (1786), 1789, pp.74–95; I6, 405–424.
633. De binis curvis algebraicis inveniendis, quarum arcus indefinite inter se sint aequales, Nova acta academiae scientiarum Petropolitanae **4** (1786), 1789, pp.96–103; I21, 142–150.
635. Innumera theoremata circa formulas integrales, quorum demonstratio vires analyseos superare videatur, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.3–26; I18, 373–391.
636. De multiplicatione angulorum per factores expedienda, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.27–51; I16, part 1, 79–111.
637. Nova demonstratio, quod evolutio potestatum binomii Newtoniana etiam pro exponentibus fractis valeat, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.52–58; I16, part 1, 112–121.
638. De innumeris curvis algebraicis, quarum longitudinem per arcus parabolicos metiri licet, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.59–70; I21, 151–162.
639. De innumeris curvis algebraicis, quarum longitudinem per arcus ellipticos metiri licet, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.71–85; I21, 163–179.
640. Comparatio valorum formulae integralis

$$\int \frac{x^{p-1} \partial x}{\sqrt[n]{(1-x^n)^{n-q}}}$$

a termino  $x = 0$  usque ad  $x = 1$  extensae, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.86–117; I18, 392–423.

- Additamentum ad dissertationem de valoribus formulae integralis

$$\int \frac{x^{p-1} dx}{\sqrt[n]{(1-x^n)^{n-q}}}$$

ab  $x = 0$  ad  $x = 1$  extensae, Nova acta academiae scientiarum Petropolitanae **5** (1787), 1789, pp.118–129; I18, 424–434.

642. De singulari ratione differentiandi et integrandi, quae in summis serierum occurrit, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.3–16; I16, part 1, 122–138.

643. Methodus generalis investigandi radices omnium aequationum per approximationem, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.16–24; I6, 425–433.

644. Innumerae aequationum formae ex omnibus ordinibus, quarum resolutio exhiberi potest, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.25–35; I6, 434–446.

645. De curvis algebraicis, quarum longitudo exprimitur hac formula integrali

$$\int \frac{v^{m-1} \partial v}{\sqrt{(1-v^{2n})}}$$

Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.36–62; I21, 180–206.

646. De duabus pluribusve curvis algebraicis in quibus si a terminis fixis aequales arcus abscindantur eorum amplitudines datam inter se taneant rationem, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.63–76; I29, 126–138.

647. De methodo tangentium inversa ad theoriam solidorum translata, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.77–94; I29, 139–155.

648. Solutio facilis problematis, quo quaeritur circulus, qui datos tres circulos tangat, Nova acta academiae scientiarum Petropolitanae **6** (1788), 1790, pp.95–101; I26, 270–276.

650. De formulis differentialibus quae per duas pluresve quantitates datas multiplicatae fiant integrabiles, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.3–21; I23, 208–229.

651. Quatuor theoremata maxime notatu digna in calculo integrali, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.22–41; I18, 435–457.

652. De termino generali serierum hypergeometricarum, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.42–63; I16, part 1, 139–162.
653. De iterata integratione formularum integralium, dum aliquis exponens pro variabili assumitur, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.64–82; I18, 458–475.
654. Methodus facilis investigandi radium osculi ex principio maximorum et minmorum petita, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.83–86; I29, 156–160.
655. Observationes generales circa series, quarum termini secundum sinus vel cosinus angulorum multiplorum progrediuntur, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.87–98; I16, part 1, 163–177.
656. De integrationibus maxime memorabilibus ex calculo imaginariorum oriundis, Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.99–133; I19, 1–44.
657. Supplementum ad dissertationem praecedentem circa integrationem formulae
- $$\int \frac{z^{m-1} \partial z}{1 - z^n}$$
- casu, quo ponitur  $z = v(\cos \varphi + \sqrt{-1} \cdot \sin \varphi)$ , Nova acta academiae scientiarum Petropolitanae **7** (1789), 1793, pp.134–148; I19, 45–62.
661. Varias considerationes circa series hypergeometricas, Nova acta academiae scientiarum Petropolitanae **8** (1790), 1794, pp.3–14; I16, part 1, 178–192.
662. De vero valore formulae integralis
- $$\int \partial x \left( \ell \frac{1}{x} \right)^n$$
- a termino  $x = 0$  usque ad terminum  $x = 1$  extensae, Nova acta academiae scientiarum Petropolitanae **8** (1790), 1794, pp.15–31; I19, 63–83.
663. Plenior expositio serierum illarum memorabilium, quae ex unciis potestatum binomii formantur, Nova acta academiae scientiarum Petropolitanae **8** (1790), 1794, pp.32–68; I16, part 1, 193–234.
664. Exercitatio analytica, Nova acta academiae scientiarum Petropolitanae **8** (1790), 1794, pp.69–72; I16, part 1, 235–240.

665. Evolutio problematis cuius solutio analytica est difficillima dum synthetica per se est obvia, *Nova acta academiae scientiarum Petropolitanae* **8** (1790), 1794, pp.73–86; I29, 161–175.

666. Problema geometricum ob singularia symptomata imprimis memorabile, *Nova acta academiae scientiarum Petropolitanae* **8** (1790), 1794, pp.87–115; I29, 176–203.

667. De curvis hyperbolicis quae intra suas assymptotas spatium finitum includunt, *Nova acta academiae scientiarum Petropolitanae* **8** (1790), 1794, pp.116–139; I29, 204–225.

668. De integratione formulae

$$\int \frac{\partial x \sqrt{1+x^4}}{1-x^4}$$

aliarumque eiusdem generis per logarithmos et arcus circulares, *Institutiones calculi integralis* **4**, 1794, pp.36–48; I19, 84–97.

669. Memorabile genus formularum differentialium maxime irrationalium, quas tamen ad rationalitatem perducere licet, *Institutiones calculi integralis* **4**, 1794, pp.48–59; I19, 98–109.

670. De resolutione formulae integralis

$$\int x^{m-1} \partial x (\Delta + x^n)^\lambda$$

in seriem semper convergentem, ubi simul plura insignia artificia circa serierum summationem explicantur, *Institutiones calculi integralis* **4**, 1794, pp.60–77; I19, 110–128.

671. De formulis differentialibus angularibus maxime irrationalibus, quas tamen per logarithmos et arcus circulares integrare licet, *Institutiones calculi integralis* **4**, 1794, pp.183–194; I19, 129–140.

672. Theorema maxime memorabile circa formulam integrelem

$$\int \frac{\partial \varphi \cos \lambda \varphi}{(1 + aa - 2a \cos \varphi)^{n+1}},$$

*Institutiones calculi integralis* **4**, 1794, pp.194–217; I19, 141–167.

673. Disquisitio coniecturalis super formula integrali

$$\int \frac{\partial \varphi \cos i\varphi}{(\alpha + \beta \cos \varphi)^n}$$

Institutiones calculi integralis **4**, 1794, pp.217–242; I19, 168–196.

674. Demonstratio theorematis insignis per coniecturam eruti circa integrationem formulae

$$\int \frac{\partial \varphi \cos i\varphi}{(1 + aa - 2a \cos \varphi)^{n+1}}$$

Institutiones calculi integralis **4**, 1794, pp.242–259; I19, 197–216.

675. De valoribus integralium a termino variabilis  $x = 0$  usque ad  $x = \infty$  extensorum, Institutiones calculi integralis **4**, 1794, pp.337–345; I19, 217–227.

676. Methodus succinctior comparationes quantitatum transcendentium in forma

$$\int \frac{P\partial z}{\sqrt{A + 2Bz + Cz^2 + 2Dz^3 + Ez^4}}$$

contentarum inveniendi, Institutiones calculi integralis **4**, 1794, pp.504–524; I21, 207–226.

677. Methodus singularis resolvendi aequationes differentiales secundi gradus, Institutiones calculi integralis **4**, 1794, pp.525–533; I23, 230–238.

678. Methodus nova investigandi omnes casus quibus hanc aequationem differentialem

$$ddy(1 - axx) - bxdxdy - cydx^2 = 0$$

resolvere licet, Institutiones calculi integralis **4**, 1794, pp.533–543; I23, 239–249.

679. De formulis integralibus implicatis earumque evolutione et transformatione, Institutiones calculi integralis **4**, 1794, pp.544–563; I23, 250–267.

680. De aequationibus differentialibus cuiuscunque gradus quae denuo differentiatiae integrari possunt, Institutiones calculi integralis **4**, 1794, pp.564–577; I23, 268–280.

681. Specimen aequationum differentialium indefiniti gradus earumque integrationis, Institutiones calculi integralis **4**, 1794, pp.577–589; I23, 281–294.

683. De singulari genere quaestionum Diophantearum et methodo maxime recondita eas resolvendi, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.3–18; I4, 221–234.

684. De radicibus aequationis infinitae

$$0 = 1 - \frac{x^2}{n(n+1)} + \frac{x^4}{n(n+1)(n+2)(n+3)} - \frac{x^6}{n \cdots (n+5)} + \text{etc.}$$

Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.19–40; I16, part 1, 241–265.

685. Exercitatio analytica, ubi imprimis seriei maxime generalis summatio traditur, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.41–53; I16, part 1, 266–281.

686. Dilucidationes super formulis, quibus sinus et cosinus angulorum multiporum exprimi solent, ubi simul ingentes difficultates diluuntur, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.54–80; I16, part 1, 282–310.

687. De insignibus proprietatibus formularum integralium praeter binas variables etiam earum differentialia cuiuscunque ordinis involventium, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.81–97; I23, 295–312.

688. Specimen integrationis abstrusissimae hac formula

$$\int \frac{\partial x}{(1+x)\sqrt[4]{(2xx-1)}}$$

contente, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.98–117; I19, 228–250.

689. Integratio formulae differentialis maxime irrationalis, quam tamen per logarithmos et arcus circulares expedire licet, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.118–126; I19, 251–261.

690. Evolutio formulae integralis

$$\int \frac{\partial z(3+zz)}{(1+zz)\sqrt[4]{(1+6zz+zz^4)}}$$

per logarithmos et arcus circulares, Nova acta academiae scientiarum Petropolitanae **9** (1791), 1795, pp.127–131; I19, 262–267.

691. Problema geometricum quo inter omnes ellipses quae per data quatuor puncta traduci possunt ea quaeritur quae habet aream minimam, *Nova acta academiae scientiarum Petropolitanae* **9** (1791), 1795, pp.127–131; I29, 226–238.
692. Solutio problematis maxime curiosi quo inter omnes ellipses quae circa datum triangulum circumscribi possunt ea quaeritur cuius area sit omnium minima, *Nova acta academiae scientiarum Petropolitanae* **9** (1791), 1795, pp.132–145; I29, 239–246.
693. De centro similitudinis, *Nova acta academiae scientiarum Petropolitanae* **9** (1791), 1795, pp.154–165; I26, 276–285.
694. Ulterior disquisitio de formulis integralibus imaginariis, *Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.3–19; I19, 268–286.
695. Integratio succincta formulae integralis maxime memorabilis
- $$\int \frac{\partial z}{(3 + zz)\sqrt[3]{1 \pm 3zz}}$$
- Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.20–26; I19, 287–296.
696. De casibus quibus hanc formulam  $x^4 + kxxyy + y^4$  ad quadratum reducere licet, *Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.27–40; I4, 235–244.
697. Investigatio superficierum quarum normales ad datum planum productae sint omnes inter se aequales, *Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.41–46; I29, 247–252.
698. Varias speculationes super area triangulorum sphaericorum, *Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.47–62; I29, 253–266.
699. Utrum hic numerus 1000009 sit primus necne inquiritur, *Nova acta academiae scientiarum Petropolitanae* **10** (1792), 1797, pp.63–73; I4, 245–254.
700. De formulis differentialibus secundi gradus quae integrationem admittunt, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.3–26; I23, 313–338.
701. Formae generales differentialium, quae, etsi nulla substitutione rationales reddi possunt, tamen integrationem per logarithmos et arcus circulares admittunt, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.27–77; I19, 297–344.

702. De novo genere quaestionum arithmeticarum pro quibus solvendis certa methodus adhuc desideratur, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.78–93; I4, 255–269.
703. Methodus facilis inveniendi series per sinus cosinusve angulorum multiporum procedentes, quarum usus in universa theoria astronomiae est amplissimus, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.94–113; I16, part 1, 311–332.
704. Disquisitio ulterior super seriebus secundum multipla cuiusdam anguli progredientibus, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.114–132; I16, part 1, 333–355.
705. Investigatio quarundam serierum, quae ad rationem peripheriae circuli ad diametrum vero proxime definiendam maxime sunt accommodatae, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.133–149; I16, part 2, 1–20.
706. De novo genere serierum rationalium et valde convergentium, quibus ratio peripheriae ad diametrum exprimi potest, *Nova acta academiae scientiarum Petropolitanae* **11** (1793), 1798, pp.150–154; I16, part 2, 21–27.
707. De insigni usu calculi imaginariorum in calculo integrali, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.3–21; I19, 345–368.
708. De formulis speciei  $mxx + nyy$  ad numeros primos explorandos idoneis earumque mirabilibus proprietatibus, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.22–46; I4, 269–289.
- 708a. Extrait d'une lettre de M. Fuss à M. Beguelin écrite de Pétersbourg le  $\frac{19}{30}$  juin 1778, *Nouveaux mémoires de l'académie des sciences de Berlin* 1776, 1779, pp. 340–346; I3, 421–428.
709. De evolutio potestatis polynomialis cuiuscunque
- $$(1 + x + x^2 + x^3 + x^4 + \text{etc.})^n.$$
- Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.47–57; I16, part 2, 28–40.
710. Specimen transformationis singularis serierum, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.58–70; I16, part 2, 41–55.

711. Methodus nova ac facilis omnium aequationum algebraicarum radices non solum ipsas sed etiam quascumque earum potestates per series concinnas exprimendi, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.71–90; **I6**, 447–464.
712. De corporibus cylindricis incurvatis, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.91–100; **I29**, 267–275.
713. Investigatio trianguli in quo distantiae angulorum ab eius centro gravitatis rationaliter exprimantur, *Nova acta academiae scientiarum Petropolitanae* **12** (1794), 1801, pp.101–113; **I4**, 290–302.
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$$(1 + x + xx)^n$$

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734. Integratio aequationis differentialis huius

$$dy + yydx = \frac{Adx}{(a + 2bx + cxx)^2},$$

Mémoires de l'académie des sciences de St. Pétersbourg **3** (1809/10), 1811, pp.3–15; I23, 379–392.

735. De insigni paradoxo, quod in analysi maximorum et minimorum occurrit, Mémoires de l'académie des sciences de St. Pétersbourg **2** (1807/8), 1810, pp.16–25; I25, 286–292.

736. De summatione serieum in hac forma contentarum

$$\frac{a}{1} + \frac{a^2}{4} + \frac{a^3}{9} + \frac{a^4}{16} + \frac{a^5}{25} + \frac{a^6}{36} + \text{etc.}$$

Mémoires de l'académie des sciences de St. Pétersbourg **3** (1809/10), 1811, pp.26–42; I16, part 2, 117–138.

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742. Observationes circa fractiones continuas in hac forma contentas

$$S = \frac{n}{1 + \frac{n+1}{2 + \frac{n+2}{3 + \frac{n+3}{4 + \dots}}}}$$

Mémoires de l'académie des sciences de St. Pétersbourg **4** (1811), 1813, pp.52–74; I16, part 2, 139–161.

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$$vvzz(axy + byy)^2 + \Delta axyy(avv + bzz)^2$$

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per numeros racionales, Mémoires de l'académie des sciences de St. Pétersbourg **11**, 1830, pp.58–68; I5, 146–156.

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Pars Prima

Investigatio Functionum Duarum Variabilium ex Data  
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Additions

a L'Analyse Indéterminée

par Joseph Louis Lagrange (1774)

I1:503–651.

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Paper 792; I5, 182 – 283.

Primo editio: Commentationes Arithmeticae 2 (1849) 503–575

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