Draft letters from Sir Isaac Newton to Pierre Varignon and others

Author: Isaac Newton

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Monsieur

Ie me donne l'honneur de vous ecrire à loccasion de ce que M. B{unnet} má marqui dans une de ses lettres que vous n'aviez pas encorre vû ce que M. Bernoulli <595r> a fait imprimer l'anneé passeé dans les aites de leipsic, et que vous souhaitiez d'avoir les mois de ces actes on ces pieces se trouvent, je n'aurois pas attendu jusques a present a vous les envoyer s'il m'avoit été possible de les avoir plustot. I'aurois fort souhaite Monsieur d'avoir pu vous marquér par ma promtitude a executer cette commission, avec quel soin je rechercherai toujours les occasions de vous faire voir l'estîme que j'ai pour vous. Vous m'obligerez sensiblement Monsieur de ne me point <594v> epargner dans toutes les occasions que je pourai vous estre de quelque utilité dans ce pais et d'estre persuadé que je suis avec respect

Monsieur

de la Haie ce 8 de Iuin 1714.

Vostre tres Humble et tres obeisant serviteur G. I.'s Gravesande.

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Literas tuas amicissimas accepi, et gratias reddo tibi quam maximas quod exemplaria duo Optices ad D. Iohannem Bernoulli meo nomine misisti et eo pacto nos reconciliare conatus fueris, quod et fecisti, ut ex literis ejus intelligo. Nam D. Leibnitius epistolis aliquot quas vidi, verbis disertis affirmaverat D. Bernoullium authorem esse Epistolæ die 7 Iunij 1673 ad ipsum scriptæ & mox in Germania impressæ & per orbem literarium sparsæ. [Et author hujus Epistolæ me plagiarij insimulat, quasi olim de calculo fluxionum et fluentium ne quidem somniassem cum in Epistolis in Commercio Epistolico editis nullæ occurrant literæ punctæ, uti nec in Principijs Naturæ mathematicis ubi frequens erat occasio calculo fluxionum utendi: cum tamen in Lemmate secundo libri secundi Principiorum et Introductione ad librum de Quadraturis Elementa methodi fluxionum demonstrentur et methodus ipsa doceatur & exemplis illustretur nullis literis punctatis adhibitis. Affirmat etiam quod prima vice hæ literæ punctatæ comparuerunt in tertio volumine Operum Wallisij, multis annis postquam Calculus differentialis jam ubique locorum invaluisset: cum tamen comparuerint in volumine secundo operum ejus, desumptæ utique ex literis meis anno 1692 mense ad ipsum scriptis id est antequam calculus differentialis ubique celebrari cæpit.] Et authorem illius Epistolæ ut calumniatorem improbum spectabam. Sed cum D. Bernoullius non sit ejus author, amicitiam ejus lubentissime amplector et colo. Et eo fine literas inclusas ad ipsum scripsi: quas oro ut ubi rursus ad ipsum scribendi occasionem habueris, literis tuis includas vel saltem circumposito operculo ad ipsum per Tabellarium mittas. Oro etiam ut gratias meas Academiæ vestræ reddas ob munera Historiæ suæ annuatim ad me missæ, te curante & easdemque tibi debitas persolvo ob munera Ephimeridum.

Et his intellectis Si quæstio aliqua ad librum illum spectans maneant indeterminata, litem omnem judicio et me judicio Academiæ vestræ determinandam lubentissime permitto.

Præter verba quæ ex Libro Principiorum citasti extant alia in Scholio ad Prop. LXIX Lib. I, quibus clarissime me gravitate corporibus essentialem minime fecisse. Quæ in Quæstionibus sub fine Optices in Editione secunda circa causam Refractionis Reflexionis & gravitatis addidi, leviter attingebam in Editione prima Prop. XII Parte III Lib. II. Et inde etiam constare potest me mde ab initio nec vacuum absolutum statu isse nec vim centripetar absque Medio impellente.

Antequam literis tuis repsonderem cupiebam colloqui cum D^{no} Keill qui longe aberat in agro Northamptoniensi: sed is jam in verbem hanc redijt & spero quod a litibus in posterum abstinebit.

Hujus libri editio tertia forte lucem videbit et in Exemplari quod in hunc finem corrigi, in fine Prop. XVII addidi hæc verba Nam si corpus revolvatur in Sectione Conica sic inventa, demonstratum est in Prop. XI, XII et XIII quod vis centripeta erit reciproce et quadratum distantiæ corporis a centro Cætera quæ correxi, ad D. Bernoullium nil spectant.

Et si ansa aliqua adhuc maneat contendendi, rem totam judicio Academiæ vestræ lubentissime permitto.

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In libro tertio Principiorum non opus est ut Vires centripetæ quibus corpora cælestia in orbibus suis retinentur nominentur gravitas. Nominari possunt vires cœlorunt; & probari potest quod vis cœlestis qua] Luna retinetur in Orbe si descendatur in Terram æqualis evadet sit gravitati nostræ et æqualem corporeum, et quod descensum efficie{illeg}t omnium similes vires in Planetarum superficiebus [gravitatem efficere possint.] descensum similem efficiet.

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A Reply to Varignon 13 December 1721

Sir

I am indebted to you a Letter in relation to M^r I. Bernoulli The injury done me by the Letter in the flying paper ascribed to M^r Bernoulli by M^r Leibnitz was publick & I looked upon M^r Bernoullis Letter to me as intended for a Remedy. But if he intended it only as a private Letter he should have told me so & then I had kept it private. However what D^r Keill did in publishing something out of it was without my consent, & I chid him for it as a breach of friendship; but he is now dead. By calling him the Mathematician or pretended Mathematician its plain that I meant nothing more then to call him the Author or pretended author of the Letter inserted into the flying paper. And by calling him Homo novus its plain that I meant nothing more then what M^r Leibnitz meant by calling D^r Keill Homo novus, that is, a

man risen up since the days of M^r Oldenburg & unacquainted with what passed between M^r Leibnitz & the English in those days. And what I said of knight errantry in Mathematicks was in opposition to M^r Leibnitz & not to M^r Bernoulli. For I was writing against M^r Leibnitz & have not yet begun to write against M^r Bernoulli nor intend to begin. M^r Leibnitz in the beginning of his Letter to Abbe Conti dated 9 Apr. 1716 compared his dispute with me to a Duel, & his appealing from ancient records to such a Duel for deciding truth I called Filling Mathematicks with knight errantry I blamed the proceedings of M^r Leibnitz by which as I there said, the ancient Letters & Papers must be laid aside & the Original Question must be run off into a squabble about Philosophy & other matters: & the great Mathematician who in his Letter [or pretended Letter] to M^r Leibnitz dated the 7th of Iune 1711, concealed his name that he might pass for an impartial Iudge, must now pull off his mask & become a party-man in this squabble & send a challenge to the Mathematicians in England, as if a Duell or perhaps a battel between what he calls my forlorn hope & the army of disciples in which he boasts himself happy, were a fitter way to decide the truth, then an appeal to ancient & authentic writings & mathematicks must henceforward be filled with Atchievements in Knight errantry, instead of reasons & demonstrations. All this I wrote against the conduct of M^r Leibnitz. For I had no controversy with M^r Bernoulli. He did not conceale his name that he might pass for an impartial judge. M^r Leibnitz made him a judge & concealed his name. M^r Bernoulli did not desert the original Question & run the dispute into a squabble: for I have not yet had any dispute with him. As he did not make himself a judge so he did not pull of his wizzard & make himself a partyman. M^r Leibnitz made him both a judge & partiman. M^r Leibnitz challenged the English Mathematicians to solve a Problem & said it was Bernoullis. It was not M^r Bern

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Viro celeberrimo D^{no} Abbati Varignon Regio Matheses Professori & Academiæ scientiarum Socio apud Parisienses Is. Newtonus S.P.D. [1]

Clarissime Domine

Accepi Historiam et Commentaria ex Archivis Academiæ Scientiarum pro Anno 1719, pro quibus gratias tibi reddo quam maximas. Accepi etiam schedam primam Libri de coloribus elegantem sane & specie nobilem. Et ne D^{nus} Montalanus expensa moleste habeat dabo illi libras viginti sterlingas, & expensa compingendi libros insuper solvam. Gratias tibi reddo quamplurimas quod insinuasti libros plures amicis donandos esse, scilicet Cardinali Polignac, & filio Cancellarij, & Bibliothecæ Academiæ. Vellem et alios donandos esse filio & nepoti D. Ioannis Bernoullij, & alios Abbati de Comitibus & P. Sebastian, & D. Remond. Sed et gratias tibi maximas reddo quod onus in te suscipere digneris conferendi Correctiones Dⁿⁱ Coste & Dⁿⁱ Moyvre inter se, et quod optimum videbitur elegendi; ut et emendandi quæcunque alia occurrerint. Metuebam utique ne correctiones Dⁿⁱ Coste, inter plurima tua negotia molestiam nimiam tibi crearent. Sed cum hocce onus in te suscipere non dedigneris, eo magis me tibi obligasti. Schema tuum libris singulis prefigendum probo, sed nondum a Pictore delineatum est. Pictorum mox adibo.

In sententia Mathematici Iudicis quam D. Leibnitius D. Ioanni Bernoullio ascripsit, publice acensor plagij. Et epistola quam D. Bernoullius ad me misit & qua se talem sententiam scripsisse negavit, videbatur ad me missa ut remedium contra injuriam illam publicam: et eo nomine licentiam mihi datam esse putabam diluendi injuriam illam auctoritate D. Bernoullij, præsertim cum is me non prohibuerit. Attamen Epistolam illam non nisi privatim communicavi, & Keilio nullam dedi licentiam aliquid evulgandi ex eadem, et multo minus scribendi contra Bernoullium ob ea quæ in Epistola illa mihi amice scripserat. Et hac de causa Keilium quasi liti studentem vehementer objurgavi: sed ille jam mortuus est.

Conqueritur D. Bernoullius quod ipsum vocavi hominem novum, & Mathematicum fictum, & Equitem erraticum. Sed contra Bernoullium nondum cœpi scribere. Hæc omnia dixi scribendo contra Leibnitium, & ejus argumenta repellendo. 1 Dixerat utique D. Leibnitius Keilium esse hominem novum et rerum anteactarum parum peritum cognitorem, id est hominem qui floruit post tempora Commercij quod Leibnitius habuit cum Oldenburgio: et idem objeci Leibnitio Bernoullium judicem constituenti, cui utique commercium illud antiquum annis plus triginta post mortem Oldenburgij ignotum fuerat. 2 Cum D. Leibnitius sententiam Iudicis mathematici Bernoullio ascriberet, vocavi In dicem illum Mathematicum vel fictum Mathematicum, id est Mathematicum qui vere author esset sententiæ illius, vel fingebatur esse author. Nam Cum Bernoullius ab Authore Sententiæ illius citabatur tanquam ab Author inversus, dubitabam utrum ille author esset, necne. Et Bernoullius ipse literis ad me datis affirmavit se non fuisse autorem. 3 D. Leibnitius in Épistola sua prima ad Abbatem de Comitibus, Quæstionem de primo methodi differentialis inventore deseruit & ad disputationes novas confugit de gravitate universali et qualitatibus occultis & miraculis & vacuo et atomis, et spatio & tempore & perfectione mundi; et sub finem Epistolæ Problema Bernoullij ex Actis <599v> Eruditorum desumptum proposuit Mathematicis Anglis: Et initio proximæ suæ ad Abbatem Epistolæ contulit hanc novam controversiam cum duello, scribens se nolle in arenam descendere contra milites meos emissarios, sed cum ipse apparerem, se lubenter mihi satisfactionem daturum. Et ad hæc omnia alludens non contra Bernoullium sed contra Leibnitium scripsi in Observationibus meis in hanc ejus Epistolam, ubi dixi quod Epistolæ et chartæ antiquæ [ex mente Leibnitij scilicet] jam abjiciendæ sunt, et Quæstio [de primo methodi inventore] deducenda est ad rixam circa Philosophiam et circa res alias: et magnus ille Mathematicus quem D. Leibnitius Iudicem sine nomine constituit, jam velum detrahere debet [secundum Leibnitium scilicet] et a partibus Leibnitij stare in hac rixa, & chartam provocatoriam ad Mathematicos in Anglia per Leibnitium mittere quasi Duellum vel potius bellum inter milites meos emissarios [uti loquitur] et exercitum discipulorum in quibus se felicem jactat, methodus esset magis idonea ad Quæstionem de primo inventore dirimendam quam examinatio veterum et authenticorum scriptorum, & scientiæ Mathematicæ imposterum factis nobilibus equitum erraticorum vice argumentorum ac Demonstrationum implendæ essent. Hoc totum contra Leibnitium scripsi et non contra Bernoullium. Leibnitius Bernoullium constituit judicem, Leibnitius eundem ex judice constituit advocatum. Leibnitius Commercium Epistolicum fugit quasi a Iudice suo condemnatum, Leibnitius vice Quæstionis de primo Inventore disputationes novas de Quæstionibus Philosophicis proposuit, et Problema tanquam a Bernoullio misit a Mathematicus Anglis solvendum. Leibnitius fuit Eques ille erraticus qui vice argumentorum ex veteribus et authenticis scriptis desumendorum, introduxit alias disputationes quas ipse contulit cum duello. Ad hoc duellum illæ me provocavit Methodi infinitesimalis gratia. Hæc methodus erat virgo illa pulchra pro qua Eques noster pugnabat. Quæstionem de primo methodi hujus inventore per victoriam in hoc duello dirimere sperabat, & Virginem lucrari non examinatis veteribus & authenticis scriptis in Commercio Epistolico editis, per que Quæstio illa dirimi debuisset. Problemata Mathematica proponi possunt exercitij gratia, sed non ad dirimendas lites alterius generis: Et solus Leibnitius eadem in hunc finem proposuit.

Hæc tibi scripsi non ut in lucem edantur, sed ut scias me nondum cum Bernoullio lites habuisse. Contra illum nondum scripsi, neque in animo habeo ut scribam: nam lites semper fugi.

Ds Moivreus mihi dixit D. Bernoullium picturam meam optare: sed ille nondum agnovit publice me methodum fluxionum et momentorum habuisse anno 1672 uti conceditur in Elogio D. Leibnitij in Historia Academiæ vestræ edito. Ille nondum agnovit me in Propositione prima Libri de Quadraturis, anno 1693 a Wallisio edita, & anno 1686 in Lem. 2 Lib. 2 Princip. synthetice demonstrata, Regulam veram differentialia dedisse & Regulam illam anno 1672 habuisse, per quam utique {C} Curvaturas Curvarum tunc determinabam. Ille nondum agnovit me anno 1669 quando scripsi Analysi per series methodum habuisse quadrandi Curvilineas accurate Si fieri possit quemadmodum in Epistola mea 24 Octob. 1676 ad Oldenburgium data et in Propositione quinta Libri de Quadraturis exponitur; et Tabulas Curvilinearum quæ cum Conicis sectionibus comparari possunt per ea tempora a me compositas fuisse. Si ea concesserit quæ lites prorsus amovebunt, picturam meam haud facile negabo. Vale

Dabam Londini

26 Sept. 1721. St. vet.

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Clarissime Domine

Accepi Historiam et Commentaria ex Archivis Academiæ Scientiarum deducta pro Anno 1719; pro quibus gratias tibi reddo quam maximas. Accepi etiam schedam primam Libri de coloribus elegantem sane & specie nobilem. Et ne D. Montalanus expensas moleste habeat, dabo illi libras viginti sterlingas, & expensa compingendi libros insuper solvam. Gratias tibi reddo quamplurimas quod insinuasti libros plures amicis donandos esse scilicet Cardinali Polignac & filio Cancellarij & Bibliothecæ Academiæ. Vellem et alios donandos esse filio & nepoti D. Ioannis Bernoulli & Abbati de Comitibus & P. Sebastian, & D. Remond & Set gratias tibi

maxime reddo quod onus in te suscipere digneris conferendi correctiones D^{ni} Coste & D. Moivre inter se & quod optimum videbitur elegendi, ut et emendandi quæcunque alia occurrerint. Metuebam utique ne correctiones D^{ni} Coste inter plurima tua negotia molestiam nimiam tibi crearent. Sed cum hocce onus in te suscipere non dedigneris, eo magis me tibi obligasti.

Sententia Mathematici Iudicis quam D. Leibnitius D. Ioanni Bernoulio ascripsit, me publice accusor vit plagij. Et epistola quam D. I. Bernoullius ad me misit & qua se talem sententiam scripsisse negavit, videbatur ad me missa ut remedium contra injuriam illam publicam, et eo nomine licentiam mihi datam esse putabam diluendi injuriam illam authoritate D. Bernoullij, præsertim cum is me non prohibuerit. Attamen Epistolam illam non nisi privatim communicavi & Keilio nullam dedi licentiam aliquid evulgandi ex eadem et multo minus scribendi contra Bernoulli ob ea quæ in Epistola illa mihi amice scripserat. Et hac de causa Keilium quasi liti studentem vehementer objurgavi; sed ille jam mortuus est.

 $Conqueritur\ D.\ Bernoullius\ quod\ ipsum\ vocavi\ \underline{hominem\ novum}, \&\ \underline{Mathematicum\ fictum}\ \&\ \underline{Equitem\ erraticum}: sed\ contra\ Bernoullium\ nondum\ cœpi\ scribere:\ Hæc$ omnia dixi scribendo contra Leibnitium. Dixerat utique Leibnitius Keilium esse hominem novum et rerum anteactarum parum peritum cognitorem, id est hominem qui florere cœpit post tempora Commercij quod Leibnitij cum Oldenburgio: et idem objeci Leibnitio Bernoullium judicem constituenti, cui utique commercium illud antiquum annis plus 30 post mortem Oldenburgij ignotam fuerat Cum D. Leibnitius Sententiam Mathematici sui Iudicis Bernoullio ascriberet, vocavi Bernoullium Mathematicum vel fictum Mathematicum, id est authorem vel fictum authorem Nam dubitabam utrum author esset agnovit nec ne, & Bernoullius se non fuisse authorem. D. Leibnitius sententiæ in Epistola sua prima ad Abbatem de Comitibus. Ouæstionem de primo methodi differentialis inventore deseruit. & ad disputationes novas confugit & Problema Bernoullij ex Actis eruditorum desumptum proposuit mathematicis Anglis. Et initio proximæ suæ ad Abbatem epistolæ contulit is hanc novam controversiam cum Duello. Et {ind} hæc omnia alludens non contra Bernoullium sed contra Leibnitium scripsi in Observationibus meis in ejus Epistolam, quod secundum Leibnitium Epistolæ et chartæ antiquæ jam abjiciendæ sunt & Quæstio [de primo methodo Inventore] determinanda est per rixam circa Philosophiam et circum res alias, & magnus ille Mathematicus quem D. Leibnitius judicem esse voluit, jam velum detrahere debet (secundum Leibnitium scilicet) & a partibus Leibnitij stare in hac rixa, & chartam provocatoriam ad Mathematicos in Anglia per Leibnitium mittere quasi Duellum vel potius bellum inter milites meos emissarios (uti loquitur) & exercitum discipulorum in quibus se felicem jactat, <601v> methodus esset magis idonea ad Quæstionem de primo inventore dirimendam quam examinatio veterum et authenticorum scriptorum; & scientiæ Mathematicæ imposterum factis nobilibus equitum erraticorum vice Argumentorum ac Demonstrationum implendæ essent. Hoc totum contra Leibnitium scripsi & non contra Bernoullium. Leibnitius Bernoullium consticit judicem, Leibnitius eundem ex judice constituit advocatum, Leibnitius disputatione proposuit de Questiones philosophicas, Leibnitius problema misit tanquam a Bernoullio; Leibnitius est eques ille erraticus qui vice argumentorum ex veteribus & authenticis scriptis desumendorum introduxit alias disputationes quas ipse contuli cum duello. [Is enim (initio secundæ suæ ad Abbatam Epistolæ) scripsit se nolle in arenam descendere contra milites meos emissarios sed cum ipse apparerem se mihi satisfactionem daturum.] Et ad hoc duellum ille me et amicos meos provocavit ut Quæstionem de primo inventore per hujusmodi victoriam dirimeret non examinalis veteribus et authenticis scriptis in Commercio epistolico editis, per quæ Quæstio illa dirimi debuisset. Problemata Mathematica proponi possunt exercitij gratia, sed non ad dirimendas lites alterius generis. Et solus Leibnitius eadem in hunc finem proposuit. Is solus in arenam descende < insertion from f 602r > ret < text from f 601v resumes > ubi prædicta scripsi

Hæc tibi scribo non ut in lucem edantur sed ut scias me nondum cum Bernoullio lites habuisse Contra illum nondum scripsi, neque in animo habeo ut scribam.

Ds Moivreus

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Nec variat lux fracta colorem

Dispescit sed non variat lux fracta colores

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non ut peritiam ejus in rebus mathematicis minuerem, sed ut significarem me dubitare an verus author esset vel fictus author sententiæ quam D. Leibnitius ipsi ut Iudici tribueret. Et Bernoullius ipse nuper ad me scripsit per omnia humanitatis sacra se talem sententiam vel Epistolam non scripsisse.

D. Leibnitius in Epistola sua prima ad — contuli{si} is hanc novam controversiam cum duello, scribens se nolle in arenam descendere contra milites meos emissarios, sed ipse apparerem se lubenter mihi satisfactionem daturum Et ad hæc omnia alludens non contra Bernoullium sed contra Leibnitium scripsi in Observationibus meis in hanc ejus Epistolam, quod Epistolæ et chartæ antiquæ, [ex mente Leibnitij] jam abjiciendæ sunt, et Quæstio [de primo methodi inventore] deducenda est in rixam circa Philosophiam et circa res alias: et magnus ille Mathematicus quem D. Leibnitius judicem anonymum constituit, jam velum detrahere debet (secundum Leibnitium scrilicet)

Dixit enim eos qui contra ipsum scripserant, non habituros esse voluptatem videndi responsa ejus ad pusillas illorum rationes, & proposuit quæstiones novas de miraculis qualitatibus occultis, & gravitate universali, & vacuo & Atomis, et spatio ac tempore & perfectione mundi & sub finem epistolæ Problema Bernoullij

Leibnitius Commercium Epistolicum fugit, & {eo} fine disputationes novas de Questionibus Philosophicis proposuit; & Problema tanquam a Bernoullio a mathematicis Anglis solvendam misit. Leibnitius fuit eques

— Ad hoc duellum ille me provocavit Methodi infinitesimalis gratia. Hæc erat fæmina illa pulchra pro qua pugnabat. Quæstionem de primo methodi hujus inventore per victoriam in hoc duello dirimere sperabat non examinatis veteribus – dirimini debuisset. Problemata Math. — proposuit

Non ut ipsi derogarem vel peritiam ejus minue{rem} sed quia dubitabam utrum ille esset Mathematicus iste qui sententiam judicis scripserat vel fingebatur esse Mathematicus iste. Nam cum Auctor Sententiæ illius Bernoullium citaverat tanquam a seipso diversum, dubitabam utrum Bernoullius author esse posset Sententiæ illius Et Bernoullius tandem literis ad me datis affirmavit se non fuisse authorem.

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letter to the Abbé Varignon

Sir

The words [Atchievements in Knight errantry instead of reasons & demonstrations] which you meet with the Remarks upon M^r Leibnitz Letters to Abbe Conti, relate to M^r Leibnitz his declining to answer the Commercium Epistolicum & instead thereof proposing new Questions to be disputed & problems to be resolved, as if the first Question were to be decided by the victory in things of another kind, as men appeal to a Duell for deciding the truth of what they fall out about. Those words are in opposition to the first Paragraph of the Letter of M^r Leibnitz to Abbe Conti dated 9th April 1716, which is in these words Cest sans doute — je serai bien aise de luy donner satisfaction. The Preface here mentioned I did not see till the book of Principles was published & a copy presented to me: & so the Authore thereof was none of my forlorn hope. By refusing to answer the notes upon the Commercium he laid aside the reasons & demonstrations taken from the Commercium, & by expressing himself ready to give me satisfaction (meaning in the new disputes & solving of Problems which he proposed)

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Vir celeberrime

Historiam Academiæ vestræ accepi una cum Ephemeride pro Anno hocce 1721, pro quibus gratius reddo tibi quam maximas. Sed et Pictura tui in manus meas tandem pervenit, elegans sane, et vultus venustate pingentisque. artificio pulcherrima. Vnde et tui similem esse concludo licet spectatorem nondum nactus s{illeg}um qui te de facie novit. Quod Picturam mei tam benigne acceperis amicitiæ et humanitati tuæ debetur.

Collectio chartarum D. Leibnitij quam D. Desmaiseaux nuper edidit, cæpta fuit concilio D. Leibnitij ipsius, schedas aliquot eo fine ad ipsum mittentis, ut ex epistola ejus ad D. Desmaizeaux 21 Aug. 1616 data & in secundo Collectionis Tomo, pag 355 impressa, colligere licet. Ineunte anno 1717 D. Abas de Comitibus (qui me mystice admodum tractavit) Epistolas D. Leibnitij ad D^{nam} Kilmansegg & D. Bothmar aliasque nonnullas cum D. Desmaizeaux communicavit ut in lucem etiam ederentur; et alias anno proximo ex Gallia eodem consilio ad ipsum transmisit, ut ex Epistola D. Desmaizeaux ad Abbatem illum 18 Aug. 1718 data et in Collectionis illius Tomo secundo pag. 362 impressa, facile discas. Hæc omnia me inscio facta sunt donec schedæ quatuor vel quinque priores Tomi secundi impressæ essent & ex Hollandia missæ et mihi ostensæ, in quibus erant Epistolæ duæ prædictæ D. Leibnitij mense Aprili anni 1716 scriptæ; quarum illa quæ ad D. Kilmansegg scripta fuit, tribuebat Epistolam 13 Iunij 1713 datam D^{no} I. Bernoullio, eandemque Gallice versam recitabat. Sed hæc nullius sunt momenti cùm Epistola eadem ijsdem verbis Gallice versa, prius impressa fuisset in Belgio in Novelles Litterairs 28 Decem. 1715 pag 414 sub hoc Titulo

Lettre de M. Iean Bernoulli a Bále du 7 Iunij 1713. In charta volante quæ anno 1713 alicubi in Germania impressa fuit & per orbem sparsa, Auctor hujus Epistolæ D. Bernoullium citabat tanquam hominem a se diversum his verbis [quemadmodum ab eminente quadam Mathematico dudum notatum est,] & D. Leibnitius citationem tunc probabat; jam vero in ejusdem Epistolæ versione Gallica citationem omisit ut Epistolam Bernoullio tribueret. Si Epistolæ originali & primo editæ fides adhibenda sit. D. Bernoullius non est auctor.

Post hæc omnia, cum Collectio prædicta prope impressa esset, D. I. Bernoullius Litteris per manus tuas ad me transmissis, negaret se auctorem esse illius Epistolæ, & cum fama quod is Auctor esset a D. Leibnitio per orbem sparsa, non aliter dilui posset quam per testimonium D. Bernoulli quod is auctor non esset: ostendi Epistolam illam D. Keill ut illi suaderem D. Bernoullium non esse auctorem. Ille autem cum adduci non posset ut crederet, me inconsulto in lucem edidit quæ in ejus Appendice vel P.S. hac de re contra Bernoullium leguntur.

Onus quod in te suscepisti (inter multa tua negotia) iterum edendi Versionem Gallicam Optices meæ, summam in me benignitatem <604v> tuam arguit, pro qua gratias satis reddere non valeam. D. de Moivre emendationes suas Versiones illius Gallicæ ad te jam missurus est Aliorum correctiones (siquas acceperis) minime cures, ne tibi vel molestiam aliquam vel moram creent. Siquæ aliæ occurrerint, hic examinabuntur & hinc mittentur. Vale.

Dabam Londini 19 Ian. st. v. $172\frac{0}{1}$

<606r>

A Monsieur Monsieur Abbé de Varignon Viro celeberrimo D. Abbati de Varignon Regio Matheseos Professorem et Academiæ Scientiarum Socio Is. Newtonus S.P.D. [3][4]

Vir celeberrime

Historiam Academiæ vestræ accepi una cum Ephemeride pro anno hocce 1721, pro quibus gratias reddo tibi quam maximas. Sed et Pictura tui in manus meas tandem pervenit accessit, elegans sane, & vultus venustate, pingentisque. artificio pulcherrima. Vnde et tui etiam similem esse concludo licet spectatorem nondum nactus sum qui te de facie novit. Quod Picturam mei tam benigne acceperis amicitiæ tuæ & humanitati debetur.

Collectio chartarum Leibnitij quam D. Desmaizeaux nuper edidit, cæpta fuit concilio D. Leibnitij ipsius, qui aliqua ad ipsum misit ut ex epistola ejus ad D. Desmaizeaux 21 Aug. 1616 data & in secundo collectionis Volumine pag 355, 356 impressa, colligere licet. Ineunte anno 1717 D. Abbas de Comitibus (qui me mystice admodum tractavit) Epistolas D. Leibnitij ad D. Kilmanseg & D Bothmar aliasque cum D. Desmaizeaux communicavit ut in lucem ederentur, et alias anno proximo ex Gallia eodem concilio ad ipsum transmisit ut ex Epistola D. Desmaizeaux ad Abbatem illum 18 Aug. 1718 data et in Collectione illa pag. 362 impressa, facile discas. Hæc omnia me inscio facta sunt donec Schedæ quatuor vel quinque priores Libri secundi impressæ sunt et mihi ostensæ in quibus erant Epistolæ duæ prædictæ D. Leibnitij mense Aprili anni 1716 scriptæ. Sed hæc nullius sunt momenti cum Epistola anonyma in Charta volante septimo Iunij anni 1713 data & Gallice versa, impressa esset in Belgio in Novelles Litterairs 28 Decem 1715 pag 414 cum hoc Titulo: Lettre de M. Iean Bernoulli a Bále du 7 Iunij 1713, Hanc enim versionem D^{no} Leibnitio ascribo eo quod is eandem in Epistola sua ad D. Kilmansegg mense Aprili subsequente posuit.

Tandum cum D. I. Bernoullius literis per manus tuas ad me transmissis negaret se authorem esse illius. Epistolæ et fama quod author esset, per D. Leibnitio Et ejus amicos per orbem sparsa non aliter dilui posset quam per testimonium D. Bernoulli quod is author non esset, ostendi Epistolam illam D. Keill ut illi suaderem D. Bernoullinon esse authorem. Ille autem cum adduci non posset ut crederet, me inconsulto in lucem edidit quæ in suo Appendice vel P.S. contra Bernoullium hæc de re leguntur.

Onus quod in te suscepisti (inter multa tua negotia) iterum edendi Versionem Gallicam Optices meæ summam in me benignitatem tuam arguit, pro qua gratias satis reddere non valeam.

D. Desmaizeaux exemplar Collectionis prædictæ quam nuper edidit ad te misit. Ab eo caveas. D. Moivreus septimana præterita emendationes suas Versiones Gallicæ Libri mei de Optica ad te misit. Aliorum correctiones (siquas acceperis) minime Cures, ne tibi forte vel molestiam vel moram creent. Siquæ aliæ occurrerint, hinc mittentur. Vale.

quam{illeg} ad D. Kilmansegg tribuebat Epistolam 13 Iunij 1713 datam tribuebat D⁰ I Bernoullio eandemque gallice versam recitabat. Sed hæc nullius sunt momenti Cum Epistola eadem ijsdem verbis Gallice versa impressa esset in Belgio in Novelles Litterairs 28 Decem. 1715 pag 414 sub hoc titulo

Lettre de M. Iean Bernoulli a Bále du 7 Iunij 1713. In charta volante quæ anno 1713 alicubi in Germania impressa fuit, author hujus Epistolæ D. Bernnoullium citat tanquam a se diversum his verbis [quem admodum ab eminente quodam Mathematico dudm notatum est.] et D. Leibnitius citationem probabat. Iam vero D. Leibnitius in ejusdem Epistolæ versione Gallica citationem omisit ut Epistolam Bernoullio tribueret.

Post hæc omnia cum Collectio prædicta prope impressa esset et D. I. Bernoullius

<607r>

To Varign{on} after Decr 1719

Sir

Vnderstanding by yours of 28 August 1719 that there is a good understanding between the Gentlemen of the Academy of Sciences & me, my desire to continue it is the occasion of this

M^r Iohn Bernoulli in a Letter to the late M^r Monmort dated 8 April 1717 excused himself for communicating a Probleme to M^r Leibnitz, representing that he had no design to challenge the English & was surprised that M^r Leibnitz should name him as the author of the Probleme & do this without his leave. And desired M^r Monmort to disabuse me & let me know how much he desired to live in amity with me, & then added. Il seroit pourtant a souhaitter qu'il voulût bien prendre la peine

d'inspirer a son ami M^rKeil sentiments de douceur & de equité enverse les etrangers, pour laisser chacun en possession de ce que luy appartient de droit, et a juste litre. Car de vouloir nous exclure de tout pretention ce seroit une injustice criant. And M^r Monmort soon after the receipt of this Letter endeavoured to make us friends but without success because M^r Leibnitz had fathered upon M^r Bernoulli a scandalous Libel dated 7 Iune 1713; & though I doubted whether M^r Benoulli were the author because the author cited M^r Bernoulli as a person different from himself, & M^r Leibnitz when he began to father the Letter upon M^r Bernoulli left out the citation: yet I thought it reasonable that M^r Bernoulli should disown the Libel as publickly as M^r Leibnitz had fathered it upon him. And soon after I was shewed a Letter written by M^r M^r Monmort to D^r Taylor concerning these Disputes with D^r Taylor's Answer: but I took no copy thereof.

I have since received a Letter from M^r Bernoulli dated 3 Non. Iulij 1719 in which with many complements he endeavours to be reconciled, & for that end represents that he wrote no such Letter as that which I complained of & I returned a friendly answer, but have since received another Letter from him dated 21 Decem. 1719 n. st of a different humour from the former, expostulating with one upon suspicion that the English are reprinting Raphsons book & making M^r Leibnitz a witness against him & that he has been dismissed the R. S. & telling me that he has Letters written by persons not concerned in this national controversy, & particularly an authentic copy of a Letter written by Mons^r Monmort to D^r Taylor 18 Decem. 1718, which if he should print would decide a great part of the controversy contrary to the mind of Taylor & his followers, &

And yet Ralphsons book was written & in the Press before I knew of it & I stopt the publishing of it four years together & could stop it no longer without paying for the edition & it is not reprinting. I never thought of making M^r Leibnitz a witness against M^r Bernoulli but on the contrary look upon look upon the Author of the aforesaid Libel in citing M^r Bernoulli as a person different from himself, M^r Leibnitz in printing this Libel with the citation, & afterwards omitting the citation when he fathered this Libel upon M^r Bernoully & M^r Bernoulli in denying that he was the author of the Libel, to be three good witnesses against M^r Leibnitz M^r Bernoulli has not been dismissed the R. S. I do not take the controversy to be national: for M^r Leibnitz spent his life in corresponding with learned men of all nations & particularly with M^r Bernoulli. I never imployed D^r Taylor to write in my defence nor consented to it, nor think my self concerned in the dispute between him & M^r Bernoulli. The Letters printed at the end of Rapson Book were reprinted in Holland before I knew of it & many new ones were added which have been communicated to him by the correspondents of M^r Leibnitz & the person imployed to publish them is is not an English man. And I have prevailed with D^r Keill during the two last years to suspend publishing what he has written against M^r Bernoulli, tho I cannot in justice hinder him perpetually from defending himself from the usage he has met with from persons imployed by M^r Bernoulli.

M^r Leibnitz from the beginning avoided medling with M^r Keill & used his utmost endeavour to engage me in person, & M^r Bernoulli does the like When the Court of Hanover came to London his friends endeavoured to reconcile us in order to bring him over to London, but they could not get me to yeild. Then he tried to get the original Letters out of the hands of the R. S. that he might print them entire in a new Commercium Epist.: but I represented that <607v> I was so far from printing the Commercium Epist. my self that I did not so much as produce the Letters in my custody: & for proof of this I produced two old Letters in my custody the one from M^r Leibnitz to me dated 1693 & the other from D^r Wallis to me dated 1695 which I did not produce least I should seem to make my self a witness in my own cause. And there was the same reason why M^r Leibnitz should not be allowed to write a Commercium Epist himself. And when these Letters were examined before the R. S. by those who knew the hands they were laid up in the Archives of the R. S. And the R. S. allowed only that if M^r Leibnitz had any old Letters which he had received from England, & would send the originalls to any friend in London to produced before the R. S. & examined by them who knew the hands & attested copies taken of them: the Originals might then be sent back to M^r Leibnitz & the Letters bee printed either in the Phil. Tr. or in Germany as M^r L. pleased. But no Letters were ever sent, but on the contrary M^r Leibnitz in his Letter to M^r Abby Conti complained that those Letters were either lost or involved in a heap of papers which would require too time & pains to search out; &

<608v>

Thre Guilder piece of Holland or piece of 60 Sty{rar}s $62 \sqcup 46$.

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57600

7200

64800

Cylden of Haneyer) (28
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$$\begin{array}{c} \text{Gulden of Hanover} \\ \text{Zell} \\ \text{Magdeburg} \\ \text{Brandenburg} \\ \text{Saxony} \end{array} \right\} \frac{2}{3} \left\{ \begin{array}{c} 28^d \; \bigsqcup \; 14. \\ 27 \; \bigsqcup \; 70. \\ 28 \; \bigsqcup \; 67. \\ 27 \; \bigsqcup \; 81. \\ 28 \; \bigsqcup \; 12. \end{array} \right.$$

Mark Lubs. 1s 6d

 $\frac{2}{3} = 41 \perp 64$

$$\sqrt{16\frac{1}{8}} \cdot \sqrt{272} :: 1".$$

$$\sqrt{16} \cdot \sqrt{270} :: 4 \cdot 16 \sqcup 4317 :: 1'.4" \sqcup 108$$

$$1400 \quad 3286$$

$$1296$$

$$10400$$

$$\underline{9849}$$

$$551$$

 $Cræsus\ king\ of\ Lydia\ began\ his\ reign\ in\ the\ first\ year\ of\ Evil\{m\} erodach\ the\ successor\ of\ Nebuchadnezzar$

Herod l. 1.

<609r>

Reply to Varignon 26 Iuly 1719 1st Copy

In autumn 1713 I received from M^r Chamberlain (who then kept a correspondence with M^r Leibnitz) a flying paper in Latin dated 29 Iuly 1713, in which it was pretended that M^r Leibnitz being then at Vienna, had not seen the Commercium Epistolicum, nor had time to examin it himself, but had referred it to the judgment of a very famous Mathematician who was impartial & very able to judge of it, & that he had received his judgment in a Letter dated 7 Iune 1713. And this Letter was inserted into the flying paper, & in the end of the Letter M^r Iohn Bernoulli was cited by the author of the Letter as a person different from himself, in these words [quemadmodum ab eminente quodam Mathematico dudum notatum est.] For these words referred to a Paper of M^r I. Bernoulli published in the Acta Eruditorum of

Feb. & Mar. 1713. This Latin Edition was dispersed in loose sheets & a translation thereof into French was printed also in Holland in the Iournal Literaire Novem. & Decem. 1713. pag. 448, 449, 450, 451.

About two years after this, M^r Leibnitz sent another translation of the Letter of 7 Iune 1713 into Holland, And now he omitted the citation above mentioned, & ascribed this Letter to M^r I. Bernoulli under this Title: Lettre de M. Iean Bernoulli de Bernoulli, du 7 de Iuin 1713. And what he sent was printed in the Novelles Literairs Decem. 28, 1715. pag. 414. And about four months after he wrote the Letters to Madam Kilmanseg & Count Bothmar into the first of which he inserted the same french translation. But these Letters were not published till four years after, & contein nothing more concerning the Letter of 7 Iune 1713 then what had been printed in the Novelles Literairs. M^r Des-Maizeaux received copies of them from M. L'Abbé Conti in Spring 1718 in order to print a collection of some Remains of M^r Leibnitz. And I knew nothing of the designe of printing them till they were shewed me in print: which was about a year before I received from M^r I. Bernoulli his Letter of 5 Iuly 1719; & a year & three quarters before they came abroad. And as M^r Bernoulli in that Letter assured me that he wrote no such Letter to M^r Leibnitz as that dated 13 Iune 1713, & in my Answer I acquiesced in that Declaration: so I have ever since told my friends that I am satisfied that M^r Bernoulli was not the author of that Letter. And tho some of my friends do not yet beleive me, yet I have encouraged none of them to contradict me.

<610r>

Reply to Varignon 20 Iuly 1714 2d Copy

In autumn 1713 I received from M^r Chamberlain (who then kept a correspondence with M^r Leibnitz) a flying paper in Latin dated 29 Iuly 1713, in which it was pretended that M^r Leibnitz being then at Vienna, had not seen the Commerciucm Epistolicum, nor had time to examin it himself, but had referred it to the judgment of a very famous Mamathematician who was impartial & very able to judge of it & that he had received his judgement in a letter dated 7 Iune 1713. And this Letter was inserted into the flying paper, & in the end of the Letter M^r Iohn Bernoulli was cited by the author of the Letter as a Person different from himself in these words [quemadmodum ab Eminente quodam Mathematico dudum notatum est.] For these words referred to a Paper of M^r Iohn Bernoulli published in the Acta Eruditorum of Feb. et Mart. 1713 This Latin Edition was dispersed in loose sheets, & a translation thereof into French was printed also in Holland in M^r Iohnsons Iournal literaire Novem & Decem 1713 pag 448, 449, 450, 451.

About two years after this, M^r Leibnitz [began to declare that the said Letter of 7 Iune 1713 was writ by M^r I. Bernoulli & for that end to omit the said citation in the copies of that Letter which he then sent to his friends For in November or December 1715 he wrote a letter to M. Abbé Conti with a Postscript in which were these words: suivant ce que M. Bernoulli a tres bien jugé</u>. And at the same time he] sent into Holland the aforesaid flying paper translated into French & ascribed the Letter of 7 Iune 1713 to M^r I. Bernoulli, & therein omitted the abovementioned citation & about four months after he did the like in a letter to Madam Kilmansegg dated 18 Apr. 1716. And at the same he wrote also to Count Bothmar that M^r I. Bernoulli was the author. What he sent into Holland was printed in the Novelles Literairs Decem 28 1715 pag. 414, but the Letters sent to Madam Kilmansegg & Count Bothmar were not printed till 1718. M^r Des Maizeauz received copies of them from Abbe Conti in spring 1718 in order to print a collection of the remains of M^r Leibnitz & I knew nothing of the design of printing them till I saw them in print which was about 1718. But the Collection was not yet complete. M^r Demaizeauz received some other Letters & Papers of M^r Leibnitz from Paris as you may understand by this Letter to M. L'Abbe Conti 21 Aug. 1718 printed in this Collection Tome II pag. 362. And about eleven months after this when the Collection was almost printed off, except the Preface, I received M^r Iohn Bernoulli's Letter dated Iuly 5 1719 in which he assured that he wrote no such Letter to M^r Leibnitz as that dated 7 Iune 1713. And in my Answer I acquiesced in that Declaration & have ever since told my friends that I am satisified that M^r Iohn Bernoulli was not the Author of that Letter. And tho some of them will not yet beleive me, yet I have given none of them authority to contradict me.

<610v>

About two years after this he sent the same translation again into Holland that he omitted the citation above mentioned And now he ascribed the Letter of 7 Iune 1713 to M^r I. Bernoulli: And what he sent was printed in the Novelles Literairs Decem 28 1715 pag. 414. And about four months after he wrote the Letters to Madam Kilmansegg & Count Bothmar. But these Letters were not published till four years after & contein nothing more concerning the Letter of 7 Iune 1713 then what had been printed in the Novelles Literairs. M^r Des Maiseaux received copies of them from L'Abby Conti in spring 1718 in order to print a Collection of the remains of M^r Leibnitz And I knew nothing of the design of printing them till they were shewed me in print: which was some months before I received from M^r I Bernoulli the Letter of Iuly 5^t 1719, in which he assured me that he wrote no such Letter to M^r Leibnitz as that dated 7 Iune 1713. And as In my Answer I acquiesced in that Declaration so I have ever since told my friends that I am satisified that M^r Iohn Bernoulli was not the author of that Letter. And tho some of my friends do not yet beleive me, yet I have encouraged none of them to contradict me.

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When the Edomites fled from David into Egypt with their young King Hadad its probable that they carried thither also the use of letters. For letters were then in use upon the northern borders of the red sea where Moses wrote the law. And at the same time the fugitive Edomites might also carry Letters into Phenicia, & Chaldea.

M^r Leibnitz wrote the flying Paper dated 29 Iuly 1713 as I gather partly by the phrase illaudabili laudis amore the word illaudabilis being peculiar to himself, & partly by his telling us what passed between him & M^r Hugens at Paris in his travells 38 years before, And yet M^r Leibnitz in the Postscript of his Letter to Count Bothmas tells us that one of his friends published the Letter of 7 Iune 1713 with Remarques, that is with the flying paper of 29 Iuly 1713.

In the beginning of this flying Paper we are told that M^r Leibnits being then at Vienna had not seen the Commercium Epistolicum: & yet two Copies of the Commercium were sent by several hands into Germany for him; & in the flying paper he tells us out of the Commercium Epist. that some of my followers had framed an accusation as if he had received from Gregory the series which deduces the magnitude of the circular arch from the Tangent though they were ignorant above 36 years that Gregory had any such series.

In the same flying paper he represented that he had written that I had found something like the differential calculus; because he beleived me but now some of my friends were not content with this but gave me the first invention he began to suspect that I had formed this method after the example of the Differential. And yet to me in March 1693 he acknowledged that it appeared by the book of Principles And yet I never told him any thing concerning this method except in what I wrote before he had it or where I claimed that I hd it before him. And Dr Wallis told him (without being then contradicted) that I explained the method to him ten years after I had found it.

In the Letter of 7 Iune 1713[5] two arguments are brought against me . The first is that prickt letters first appeared in the third Volume of D^r Wallis's works which came abroad in 1699 which was many years after the differential Method had prevailed every where. And yet prickt letters appeared in the second Volume of D^r Wallis's works A.C. 1693 before the differential method began to make a noise in England. The second is that I had not the true method of finding the fluxions of fluxions or differences of differences till a long time after it was familiar to others: And yet my Rule for doing this was published by D^r Wallis in the second Volume of his works A.C. 1693, with examples in first & second fluxions; & it is the first Rule which came abroad for doing this & also the best

Prickt Letters are not necessary to the method of Fluxions. I taught the method without prickt letters in the Introduction to the Book of Quadratures & M^r Leibnitz wrote his Tract de motu corporum in Medijs resistentibus without his diffferential notation & then added[6].

- p. 176 l. 14. So then by the testimony of D^r Barrow found upon paper which he received from M^r Newton before the publishing of the Logarithmotechnia, M^r Newton had the Method in the year 1666 or before
- P. 183 l. 7. In the year 1671 two Tracts written by M^r Leibnitz were published at London
- P. 184. from London to Paris. He was hitherto unacquainte{d} with the higher Geometry. But the Horologium oscillatorium of M^r Hugens coming out in April following, he began to learn it with reading that book. He continued his correspondence with M^r Oldenburgh about Arithmetical matters till Iune, spent the year following in studying the higher Geometry & in Iuly 1674 began to renew his correspondence & wrote to M^r Oldenburgh that he had a wonderfull Theoreme &c
- P. 186. l. 3. add. For by the demonstration of those series, he meant the method of finding them. And since he wrote to Mr Oldenburg that Mr Collins could easily supply him with what he desired, he had heard of the Analysis per æquationes numero terminorum infinitas & wanted a copy of it. For at the same time he desired also that copies of All Mr Iames Gregories Letters to Mr Collins might be sent to Paris.

Vpon the receipt of the aforesaid Letter –

- P. 187. l. friends at Paris three years before or above, that is, before August 1673 & by consequence before he understood the higher Geometry. For when he received it in Mr Oldenburghs Letter of Apr. 15 1675, he did not know it to be his own, as appears by his Answer of May 20 1675 above mentioned.
- P. 190 l 33. after series. Add. The same is manifest also from hence that M^T Leibnitz in his Letter of Aug. 27. 1676 placed the top of Analysis not in the Differential method but in Analytical Tables of Tangents & in the Combinatory Art; saying of one of them: Nihil est quod norim in TOTA Analysi momenti majoris; & of the other: {E}a nihil differt ab Analysi illa SVPREMA, ad cujus intima Cartesius non pervenit. Est enim ad eam constituendam opus Alphabeto Cogitationum

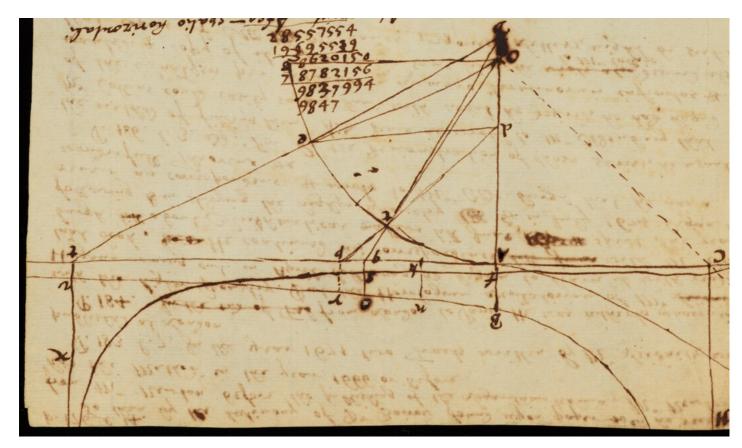
Pag. 194 lin. 6. M^r Leibnitz came to London a second time in October 1676 & there saw this Letter of M^r Newton dated Octob. 24, 1676

<612v>

 $2718\frac{1}{2}$ ". 3941 ". 6405 '. $2296\frac{1}{2}$ '. 114226 "

4.4343293 8.8686586	4.5955513 9.1911026	$\frac{4.8132473}{9.6264946}$.	$\frac{5.3609952}{10.7219904}$.	6.0577650 12.1155300
$2.9562195\frac{1}{3}$	$30637008\frac{2}{3}$.	$3.2088315\frac{1}{3}$.	3.5739968.	4.0385100
6657608 -	23979400	$6657608\frac{2}{3}$	$6657608\frac{2}{3}$.	6657608
$2.2904587\frac{1}{3}$	$0.6657608\frac{2}{3}$	$2.5430706\frac{2}{3}$	$2.9082359\frac{1}{3}$	$3.3727491\frac{1}{3}$
$1 {\sqcup} 95165.$	2,5.	3.49196	$8 {\perp} 0953$	$23{\sqsubset}5911$
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$1 {\sqsubset} 95.$	$2 {\mathrel{\sqsubseteq}} 5.$	$3{\it \sqsubseteq}49$	$8 {\mathrel{\sqsubseteq}} 09$	$23{\it L}58$
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		28557554		
		19695529		
		38620150		
		78782156		
		9837994		
		9847		

284390 4739833 7899722 13166203



Adt=temp. Ap=veloc: ascensus. Ak=resist. Afsq=spatio horizontali

<613r>

To Varignon before Nov. 17 17{18}

Sir

I have been long indebted my thanks to you for several presents of the annual Memoirs of your Academy & now return them to you very heartily. I thank you also for the present you umade me of Almanacks filled with all variety of things relating to time. And I beg the favour that you will be pleased to return my thanks to M^r Fontenell for the honourable mention which he made of me in the Elogium upon M^r Leibnitz. I was lately told as from your self that you had done nothing against me in all that dispute & I beleive it & thank you for your friendship. [By the contrivance of some of the Court of Hannover I was prevailed with to write an Answer to a Postscript of a Letter which M^r Leibnitz wrote to M^r I'Abbé Conti that both might be shewed to the King. But while the Commercium Epistolicum remains unshaken I see no need of my medling with that Controversy any further unless perhaps I should cause that Book to be reprinted, or write a short Preface to the Book De Quadratura Curvarum to shew that that Book (which has been accused of Plagiary) was in MS before M^r Leibnitz knew any thing of the Differential Method.] A few weeks ago I sent you a copy of {illeg} a new edition of my English Opticks by By the contrivance of some of the Court of Hannover I was prevailed with to write an Answer to the Postscript of a Letter written by M^r Leibnitz to M^r I'Abbe Conti, that both might be shewed to the King. I did it with reluctancy. And by the Letters which M^r Leibnitz thereupon wrote to several at Court I found that he was at the bottom of the designe. It is now above 40 since I left of all correspondence by Letters about Mathematicks & Philosophy, & therefore I say nothing further to you about those matters

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Quod Acta Philosophica a Secretario Academiæ vestræ annuatim edit{or} ad me aliquoties misisti gratiæ meæ tibi debentur easque quam maximas tibi reddo; ut et pro exemplaribus Ephemeridum omni rerum varietate refertis & pro secundo Exemplari Actorum anni 1714. Et oro ut ut gratias meas D^{no} Fontenel Academiæ vestræ Secretario etiam reddas eo quod in Elogio Dⁿⁱ Leibnitij honorifice de me locutus sit. Nuper mihi narratum est tuo nomine te in controversia Leibnitiana nihil contra me fecisse eaque de re tibi etiam gratias ago. † Iam quadraginta sunt anni et amplius ex quo commercium per literas circa res Philosophicas & mathematicas habere desij ideoque de controversia illa Leibnitiana nihil tibi scribo. Eademque de causa, molestiam tibi amplius creare nollem mittendi annuatim ad me tua dona Philosophica. Nam et Senio confectus a rebus Philosophicis et mathematicis quantum per negotia Societatis Regalis licet, me abstineo; & quod D. Leibnitio respondi ægre effectum est consilijs Aulicorum. Dona tamen tua plurimi facio quatenus sunt amicitiæ tuæ testimonia. † Misi tibi nuper exemplar novæ Editionis Libri Opticorum Anglice, & missurus sum exemplar Editionis Latinæ quam primum prodierit.

Viro celeberrimo Dn. Abbati de Varignon in Academia Scientiarum Parisijs

Isaacus Newton salutem

<614r>

To Iohn Bernoulli before Iuly 5^t 1719 or answer to {illeg} of Iuly 5^t 1719 2^d Copy

Vir Celeberrime

Cum primum Literas tuas ad me mediante D^{no} Abbate Varignone missas acceperam, et ex ijs intellexeram te non esse authorem Epistolæ cujusdam ad D. Leibnitium 7 Iunij 1713 datæ, in animum statim induxi me non tantum lites mathematicas nuper commotas negligere velle (id enim prius feceram) sed etiam amicitiam tuam colere et ob ingentia tua in rem mathematicam merita magni æstimare. Famam apud exteras gentes numquam captavi, sed nomen tamen probitatis, quod auctor illius

Epistolæ, quasi autoritate magni alicujus Iudicis, convellere conatus est, salvum esse cupio. Studijs Mathematicis jam senex minime delector, neque opinionibus per orbem propagandis operam unquam dedi sed caveo potius ne earum gratia disputationibus involvar. Nam Lites semper odi. Humanum fuit et gratias meretur quod libros Optices ad te missos benigne accipere dignatus fueris Et hoc etiam nomine me tibi devinxisti, et humanitatem tuam amicitia mutua rependere canabor. Quæ sub finem libri D. Ralphson ante triennium impressa fuerunt; iterum impressa sunt idque in Hollandia una cum nonnullis D. Leibnitij Epistolis in quibus affirmat te authorem esse Epistolæ prædictæ. Si ista lucem tandem videant (quod ,) spero quod hoc minime nocebunt , cum non sis Auctor ille. In editione secunda Libri mei Principiorum postulabat D. Cotes ut Corol. I Prop. XIII Lib. I demonstratione munirem, et ea occasione Corollarium illud verbis nonnullis auxi: SEd hoc factum est antequam hæ lites ceperunt. Nam schedæ primæ viginti octo illius editionis, (id est usque ad pag. 224 inclusive) impressæ fuerunt ante 13 Apr. , 1710, et schedæ primæ triginta septem (id est usque ad pag 296 inclusive) impressæ fuerunt ante 30 Iunij 1710, et prelum subinde quievit usque ad mensem Iunium anni proxim{i} sequentis, ut ex Literis Dⁿⁱ Cotes eo tempore ad me missis et adhuc asservatis intelligo. Scheda igitur septima in qua Corollarium illud extat, impressa fuit anno 1709. Et hoc annoto ut intelligas me animo candido Corollarium illud auxisse et hactenus nullas tecum lites agitasse. Litibus autem componendis quas cum amicis meis habuisti, quantum in me est operam dabo [.7]

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Nova non sunt sed continent tantum explicationem pleniorem eorum

To Bernoulli (illeg) 26th Iuly 1719 2d Copy

Vir dignissime

Cum primum literas tuas ad me mediante D^{no} Abbate Varignonio missas acceperam, & ex ijs intellexeram te non esse authorem Epistolæ ad D. Leibnitium 7 Iunij 1713 datæ, in animum statim induxi, me non tantum lites mathematicas nuper commotas negligere velle (id enim prius feceram) sed etiam amicitiam tuam colere, et et ob insignia tua in rem literariam merita magni æstimare. Famam apud exteras gentes numquam captavi † < insertion from the bottom of the page > sed nomen tamen probitatis, quod auctor illius Epistolæ (quasi auctoritate magni alicujus Iudicis) convellere conatus est, salvum esse cupio: Et cum Iudex ille adhuc lateat, vacillat ejus actoritas. Studijs Mathematicis jam senex mineme delector † < insertion from the bottom of the page > † Studijs mathematicis jam Senex minime delector Neque opinionibus meis , per orbem propagandis operam unquam dedi sed caveo potius ne earum gratia disputationibus involvar. Lites semper odi, et conabar ut etiam amici mei a litibus commotis abstineant. Humanum fuit & gratias meretur quod libros Optices ad te missos benigne accipere dignatus fueris: Et hoc etiam nomine me tibi devinxisti.

Librum Principiorum scripsi anno 1685 & mensibus quatuor primis anni sequentis isque ob brevitatem temporis non satis correctus lucem vidit. Postulabat D. Cotes ut Corollarium primum Propositionis XIII demonstratione munirem in Editione secunda {et} ut ei satisfacerem verba {q}uædam ad Corolarium illud addidi. Demonstrationem Constructionis Prop XVII non {pp}posui propterea quod corpus in Sectione Conica per Constructionem prodeunte, movebitur per Prop. XI, XII et XIII antea demonstratas. < text from the bottom of the page resumes > < text from f 615r resumes > Scilicet In Introductione ad librum de Quadraturis methodus fluxionum docetur et exemplis illustratur absque literis punctatis, et elementa methodi extant absque literis illis in Lem. II lib. II. Princip. In Principijs illis per Compositionem utique scriptis, calculo fluxionum utendi nullam habui occasionem. Literæ punctatæ & Propositio prima libri de Quadraturis, quæ Regulam meam capiendi fluxiones primas secundas tertias aliasque omnes continet, apparuere in secundo Volumine operum Wallisij anno ineunte 1693, et aliam Regulam dedi nullam. Et incrementum constans ipsius x adhuc designo per literam o. Sed Author illius Epistolæ hæc omnia pervertit.

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In Editione Libri Principiorum postulabat D. Cotes ut Corol. 1. Prop XIII lib 10 Princip Demonstratione munirem Et ut ei satisfacerem: Corollarium verbis nonnullis auxi. Et hoc factum est antequam hæ lites ceperunt. Nam Schedæ primæ 28 id est usque ad pag 224 inclusive impressæ fuerunt ante Apr 13 1710 et schedæ primæ 37 primæ 37 Editiones illas (id est usque ad pag. 296 inclusive) impressæ fuerunt ante 30 Iune 1710, et prelum subinde quievit usque ad mensem Iunium anni proximi ut ex Literis D. Cotes eo tempore ad me missis intelligo. Hoc annoto ut intelligas me nondum cæpisse tecum [8] lites habere.

In Literas tuas amicissimas accepi, et gratias reddo tibi quam maximas quod exemplaria duo Optices ad D. Iohannem Bernoulli meo nomine misisti & eo pacto nos reconciliare conatus fueris quod et fecisti; ut ex literis ejus intelligo. Nam D. Leibnitius Epistolis aliquot quas vidi disertis verbis affirmaverat D. Bernoullium authorem esse Epistolæ ad ipsum, 7 Iunij 1713, scriptæ et mox in Germania impressæ & per orbem literarium sparsæ: qua Epistola affirmatur accusor quasi ② ② in Principijs Naturæ mathematicis calculo fluxionum utendi frequentem habuissem occasionem si mihi calculus ille tunc notas fuisset cum tamen liber ille scriptus sit per methodum Compositiones. quam calculus Algebraicus ingredi {nota} debet. Et quod hæ literæ punctatæ ③ Et quod hæ literæ prima vice comparuerunt in tertio volumine operum Wallisij, multis annis postquam calculis differentialis jam ubique locorum invaluisset cum tamen comparuerint in secundo volumine operum ejus desumptæ ex literis meis anno 1692 ad ipsum scriptis, id est antequam calculus differentialis celebrari cæpit. ⑤ Et quod Regulam circa gradus ulteriores differentiarum falsam dedi, et recta methodus differentialid differentialia mihi non innotuit longo tempore postquam alijs fuisset familiaris cum tamen Regula circa gradus ulteriores in Propositione prima libri de Quadraturis a me data, et verissima sit et simplicissima et generalissima & omnium prima in lucem prodijt, (videlicet in secundo volumine operum. Wallisij ineunte anno 1693), et Propositio illa in Epistola mea anno 1676 Octob 24 ad Leinitium missa ijsdem syllabis expressa secundo libri secundi principijorum elementa hujus methodi verbis expressis proponam ac proponam ac demonstrem & in proæmio libri de Quadraturis methodum ipsam expresse doceam et exemplis illustrem, nullis literis punctatis adhibitis. ② Accusor Etiam quod ④ Et quod in Principijs Naturæ mathematicis calculo &c et ④ quod in Principijs utar litera o pro incremento constante ipsius x, quod method commoda destruit cum tamen adhuc utar eadem liter

6 Hæc omnia Author Epistolæ affirmat ut me plagiarij reum ag {a}t, ideoque calumniæ reus est ipse nisi crimen probet. Quo effectum est ut ab amicitia D. Bernoulli hactenus abstinererim. Sed cum ille epistolam illam minime scripserit, ut ex literis ejus jam didici, non est cur diutius abstineam Ideoque Literas inclusas ad ipsum scripsi, quas oro ut ubi rursus ad ipsum scribendi occasionem nactus fueris, literis tuis includas. Oro etiam ut Gratias etiam reddas meas Academiæ vestræ ob munera Historiæ suæ annuatim ad me missæ, te curante

ut intelligas me animo candido Corollarium illud auxisse, et nullas tecum lites hactenus inijsse. Litibus autem

Quæ sub finem libri D. Raphson ante triennium c{illeg}ta sunt, iterum {imp}ressa esse intelligo, idque in Hollandia An lucem videbunt nondum scio. {illeg}{m} D. Bernoulli lites nondum habuit {At} neque habebo sed e contra conabor non tantum [Ut lites inter illum et amicos meos essent Dⁿ sed etiam ut ejus amicitia f{ru o}r.

Vid Dignissime Illustrissime

Quod Academia vestra munusculum meum Libri Optices benigne accipere dignatus est, gratissimum fuit ex literis tuis intelligere, et gaudium auxit plurimum qu{o}d Editio prima ipsis antea innotuisset & quod jam scire non dedignarentur quid additum sit in hac nova editione. philosophiam experimentalem hic prosequor tanquam dignam quæ Philosophia voc{e}tur, & philosophiam hypothetam tracto non ut scientiam sed per modum questionum. Et quæ in hac Editione addidi sunt posterioris generis. Hac occasione gratias tibi persolvere debeo quam maximas ob honoris quos in me contulisti in elogio D. Leibnitij. Et quo minus commemorationem tam honorificam a te merui, eo magis tibi devinxisti

Domine

Servum tuum humillimum et maxime obedientem

Fundamentum posuisti terminandi liteis circa methodos novas Analyticas & spero quod cito terminabuntur: Quo minus autem hæc a te merui, eo magis tibi devinxisti

Servum tuum humillimum, et max obed.

2 {illeg} To {chamberl}{en} {illeg} of {illeg} 3 {illeg} To Des Maizeu

Sii

M^r Bernoulli in a Letter to me of Decem 21 1719, seems to write upon suppositions that M^r Raphson's book was printed with my consent & has been reprinted by my friends; that the controversy about the differential method is national, & those of other nations then England & Germany are unconcerned some of whose letters he can publish unless the English desist to provoke him, that I can stop the publishing of papers against him in England; that the two Letters of Mr Leibnitz in which Mr Bernoulli is said to be the author of the letter of 7 Iune 1713 are printed here by my friends; that I admit M^r Leibnitz to be a witness in his own cause against him; & that he has been dismissed the R. Society. You know how all this matter stands & I beg the favour that you would signify it to Mr l'Abby Varignon. Mr Raphsons book is not reprinted nor concerns M^r Bernoulli. M^r Leibnitz kept a general correspondence & has friends in England, & France & other countries as well as in Germany some of those in England in England have been collecting his remains in honour of his memory & The two letters above mentioned are in this collection.; & I have no hand in what they do, The Letter of 7 Iune 1713 was translated into French & printed in Holland & there ascribed to M^r Bernoulli four years ago; that it is reflected upon in the Elogium of MI Leibnitz, & therefore it was sent into France as well as into England; The author of This Letter, as it was at first printed in Germany, cited MI Bernoulli as a person different from himself, but in the french translation this citation is omitted & this omission of what was at first printed in order to father the letter upon M^r Bernoulli, made me question the testimony of M^r Leibnitz in my answer to one of his Letters three years before I received M^r Bernoulli's declaration that he was not the author thereof. And after I received that Declaration I acquiesced therein without thinking of admitting Mr Leibnitz a witness against M^T Bernoulli & gave M^T Bernoulli notice of what M^T Leibnitz had written not to question M^T Bernoullis Declaration, but that he might not be surprized hereafter at what of Mr Leibnitz were publishing: And Mr I. Bernoulli has not been dismissed the R. S. but is still a Fellow thereof. I believe that you know all this, & beg the favour that if you are satisfyed, you would signify your satisfaction to Abby Varignon. For Mr Bernoulli will beleive you t{ooo} sooner then me. I beg the favour also that you would send to Abby Varinion the inclosed copy of the letters of 7 Iune & 29 Iuly *[10]:1673 printed in Germany & dispersed that autum in great numbers by the friends of M^T Leibnitz & desire him to communicate it to M^T Bernoulli that he may know what Letter it is that M^T Leibnitz has endeavoured

As for Mathematicks: the Ancients had two methods, Synthesis & Analysis or Composition & Resolution. They invented things by their Analysis but admitted nothing into Geometry without a synthetical Demonstration. & when they had demonstrated any thing synthetically they made use of it as a Lemma for Demonstrating any thing else.

<617v>

Sir

I have received a letter from M^r Iohn Bernoulli such misunderstandings as may require some further testimony then my own to sett then right. You know that M^r Ralphsons book was printed seven years ago, without my approbation & published three years ago & is not reprinted nor worth reprinting The two Letters of M^r Leibnitz in which he affirmes that the Letter of 7 Iune 1713 was writ by M^r Iohn Bernoulli were printed above a year ago without my knowledge by a friend of M^r Leibnitz who has collected & printed many others of his Letters in honour of his memory. And I have nothing to do in that matter, & am so far from making M^r Leibnitz a witness against M^r I. Bernoulli that I have openly declared the contrary . For the author of the said Letter cited M^r I. B. in the body of the Letter as another person different from himself. M^r Leibnitz in the year 1713 pubblished the Letter with that citation & thereby declared to the world that M^r Iohn Bernoulli was not the author. But afterwards in a french translation of the Letter de omitted that citation & wrote in his Letters that M^r Iohn Bernoulli was the author & thus by varying from citation & wrote in his Letters that destroyed his own testimony.

You know also that out of a desire to be at rest & to let Mr Leibnitz rest in his grave I have neglected this controversy the three last years,

 M^r Bernoulli in his letter of Decem. 21. 1719 writes upon suppositions that M^r Ralpsons book was printed with my consent & has has been reprinted \odot \odot by my friends that the controversy about the differential method is national that whate is printed in England is printed for me & by my consent that the Letters of M^r Leibnits are printed against him, that I am consented to the printing them, &that he has been dismissed the R. Society, & upon these suppositions threatens me with printing some letters in his custody & part {illeg}{orl}y a Letter of M^r Monmo{rt} to M^r Taylor dated 18 Decem 1718.

To Iohn Bernoulli

Sir

I do not take the controversy about the differential method to be national, nor is every thing written or printed in England written or printed by my order or advice, or with my consent. M^r Ralphson wrote & printed before the Commercium Epistolicum came abroad & his book was in the press before I knew of it, & I stopt its coming abroad for three or four years. It was published three years ago & & is not reprinted. The two Letters wherein M^r Leibnitz represents that you were the author of the letter dated 7 Iune 1713, were printed above a yeare ago by a friend of M^r Leibnitz who has been collecting his remains & I knew nothing of the matter till I saw the Letters in print. I do not admitt M^r Leibnitz a witness against y ou, but have told my friends that I admit the author of that Letter, M^r Leibnitz, & you, to be three witnesses against M^r Leibnitz. You are not dismissed the R. Society. The reduction of Problemes to Quadratures being the first degree of the inverse method of fluxions I wrote in the Introduction to that Book that I found the method of fluxions gradually in the years 1665 & 1666. This has been contradicted by M^r Leibnitz & his friends, & particularly by the author of the aforesaid Letter of 7 Iune 1713. I never meant to affirm that

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River 708 fooot broad.. solid Peers in 17 arches 30 foot Depth 21 foot at a medium 708.30: $\frac{630}{708}$ feet $\frac{630,12 \text{ dig}}{708} = \frac{630}{59}$ dig. $= \frac{640}{60}$ dig $= 10^{\text{ dig}} = \frac{2}{3}$ dig.

p. 250 l. 1. In eadem Analysi Newtonus posuit secundam Propositionem Libri de Quadraturis (pag 230, lin. 13) dixitque Curvarum areas &c.

Denique sibi fa{illeg} esse crederet has tuas Literas amice scriptas publici juris facere, is easdem tribus tantum vel quatuor amicis privatim ostendit, ut eos convinceret te non

Ille porro huic meæ quæstioni benigne respondit, see insertion from f 619v > see dicendo te primas tenere inter D. Leibnitij discipulos, < text from f 618r resumes > D. Leibnitium in prima sua ad Abbatem de Comitibus Epistola numerum discipulorum suorum jactasse & initio Epistolæ suæ secundæ scripsisse Sed cum is [Newtonus] per se jam lubens apparebit, paratus sum ipsi satisfactionem dare. Et addidit; et addidit se ad Leibnitij verba priora allusisse loquendo de prælio cum exercitu discipulorum Leibnitij & ad posteriora de Duello cum ipso Leibnitio. Equites erraticos utique non ad prælium sed ad duellum spectare. Verba autem sua in Observationibus quas scripsit in Epistolam illam secundam, viz^t [& Mathesis factis heroicis vice rationum ac demonstrationum abhinc implenda esset] alludunt ad disputationes philosophicas & problematicas quæ ad rem nil spectant, introductas vice rationum ac demonstrationum ab antiquis Epistolis et Monumentis desumptarum quæ solæ ad rem spectant. Et A posterioribus ad priores non Bernoullius sed Leibnitius confugit.

Præterea Newtonus testatur, ipso inscio, supradictam collectionem editam fuisse, donec schedæ quatuor vel quinque primæ Tomi secundi impressæ essent, ex Hollandia missæ & ei ostensæ. Et observat etiam quod collectio illa fuit Chartarum D. Leibnitij, quod D. Des-Maizeaux accepit ab ipso Leibnitio et ejus amicis, uti constat ex epistola D. Leibnitij ad D Des Maizeaux 21 Aug 1716, et Epistola D. Des Maizeaux ad Abbatem de Comitibus 21 Aug. 1718 in secundo Collectionum Tomo impressis pag. 355 & 362. Adde quod Newtonus asserat collectionem hanc prope impressam esse cum primas tuas Literas accepit: Et se credidisse quod tu Literas eas mittendo tanquam remedium contra injuriam publicam, illi licentiam dedisses easdem in lucem edendi si ita illi visum fuisset, & multo magis eas privatim <618y>

Denique cum auctor Mathematicus Iudicij 7 Iun. 1713 dati, te citaret tanquam a seipso diversum & D. Leibnitius Iudicium illud cum hac citatione mox edi curaret, & post biennium in Versione Gallica citationem omittere secundum D. Leibnitij ad Abbatem de Comitibus epistolam de Auctore Iudicij illius dubitasse his verbis [And whether the Mathematician or M^T Leibnitz is to be beleived I do not know; id est, Et Vtrum Mathematicus ille vel D. Leibnitius credendus sit, non scio.] Postquam vero Literas tuas prædictas acceperat quibus negasti te auctorem illius fuisse, se fidem ijsdem habuisse, et ut Keilium contradictentem convinceret, Literas tuas illi ostendisse, sed nullam illi licentiam dedisse aliquid ex ijsdem edendi, nec vidisse quæ edebat antequam in lucem prodiere; & tunc eum objurgasse quod ex literis ei privatim ostensis aliquid edidisset absque venia ostendentis, idque disputando in contrarium.

<619v>

Denique cum Auctor Iudicij 7 7 Iun. 1713 dati te citaret tanquam a seipso diversum, & D. Leibnitius Iudicium illud cum hac citatione mox edi curavet, & post biennium in Versione Gallica citationem omitteret ut te Iudicij auctorem faceret: Newtonus observat | scribit se in Observationibus suis in secundam Leibnitij ad Abbatem de Comitibus Epistolam se de auctore Iudicij illius adhuc dubitasse his verbis: And whether the Mathematician or M^I Leibnits is to be beleived I do not know. Postquam vero literas tuas prædictas accepit quibus negasti te auctorem illius fuisse, ille fidem ijsdem habuisse, & ut Keilium contradicentem conviceret Literas tuas illi ostendisse., sed nullam illi licentiam dedisse aliquid ex ijsdem edendi, nec vidisse quæ edebat antequam in lucem prodiere; & tunc se eum objurgasse quod ex literis ei privatim ostensis aliquid ederet absque venia, idque disputando in contrarium.

Denique se ad lites inter te et Keilium

Denique Keilium Oxonij scripsisse quod milliaribus prope 50 Londino abest.

Denique se literis tuis fidem habuisse, easque Keilio ostendisse ut eum convinceret, ipsi vero nullam dedisse licentiam ut aliquid ex ijs ederet & cum objurgasse quod

Denique Keilium adversus te suo Marte scripsisse idque Oxonij, se lites illas neglexisse, litteris tuis jam dictis fidem habuisse, eas Keilio contradicenti privatim ostendisse ut eum convinceret, (sed frustra, literas Keilij ad te subinde scriptas non vidisse antequam in lucem prodirent, et Keilium mox objurgasse quasi litibus novis studentem.

And Homer was of about the same age. For when Vlysses went to Troy he left his family in I{th}aca under the care of Mentor. And Homer lived And Homer afterwards lived sometime with Mentor in Ithaca, & there learnt of him many things concerning Vlysses. . And Herodotus tells us that Homer & Hesiod were not above 400 years older then himself.

And Homer was of about the same age. For [Mentor was acquainted with Vlysses in Ithaca & Homer afterwards] he lived sometime with Mentor, in Ithaca & there learnt of him many things concerning Vlysses with whom Mentor had there been personally acquainte{d}. Now Herodotus the oldest historian of the Greeks now extant tells us that Hesiod & Homer were not above 400 years older then himself. They flourished therefore about 110 or 120 years after the death of Solomon, & the taking of Troy was but one generation earlier.

[1] 26 {sept} 21

[2] 19th Ian 1721 1st Copy

[3] 19 Ian. 1721

[4] 2d Copy

[5] 1713

[6] Pricked Letters

[7] Answer to **(illeg)** 10 Iuly 1719

[8] Varignon

[9] Letter of Newton to Varignon

[10] × 1713