Mathematical Association of America History of Mathematics Special Interest Group

HOM SIGMAA News

Volume X, Number 1 February 2020

Greetings from the HOM SIGMAA Chair

Dates to Remember:

July 6 – 8, 2020 *People, Places, Practices*, University of St. Andrews, Scotland

July 29 – Aug. 1, 2020 *MathFest* in Philadelphia, PA

Inside this issue:

That is crazy, 2020! My son graduates from high school in 2023, and all of a sudden, by simply incrementing the ten's digit, it just got a lot closer! From what I have heard, JMM Denver went well. I was disappointed to have to cancel my trip this year. For those of you who have met me, you know how much I love the meetings! I want to thank Cynthia for taking the lead at our annual meeting since our Past Chair Danny Otero also could not attend.

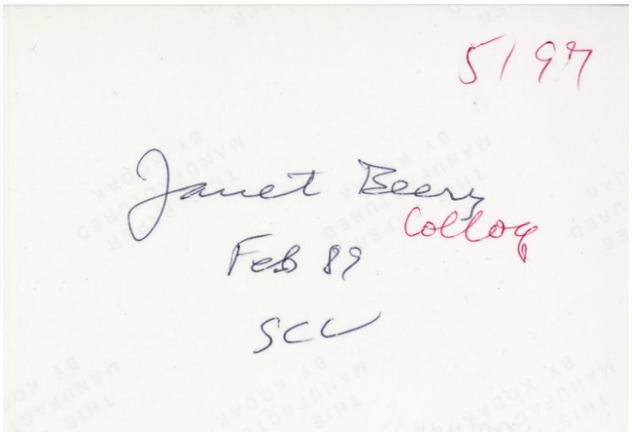
On the meeting front, 2021 is the last JMM with direct MAA involvement and MathFest will become the official meeting of the MAA. It is still unclear how SIGMAA events will take place at future JMMs. The AMS has let us know that they are happy to have MAA group (SIGMAA and Section) events at JMM and will not charge us for rooms or AV. The issue that remains to be solved by the MAA is how a SIGMAA would pay for catering for a reception. I keep bringing it up, and will let you know when it is resolved. I should change my name to Amy S.W. Shell-Gellasch for "squeaky wheel". The exec has been discussing this and has decided that we will follow the MAA and starting in summer of 2022 hold our annual meeting at MathFest. There will still be many history sessions at JMM and the HOM SIGMAA will continue to support these. The MAA is also trying to change the focus from national meetings to section meetings keeping in line with their goal of increased community. So we encourage members to encourage your sections to include as much history of mathematics at your section meetings as possible. This can be in the form of invited speakers, sessions, posters, panels, etc.

Speaking of listservs, we have by far the most active listserv of all the SIGMAAs (as well as the largest membership by almost double – we rock!) MAA Connect has officially rolled out, though it rolled out for groups like SIGMAA officers and Section officers in the fall. If you have not done so, please set up your profile for Connect and choose how you would like to get your notification reminders sent to your email (you never log into Connect

Continued on next page ...

to check), digest or real time. Community groups like your section and HOM SIGMAA will go live soon. At some point after that our listserv will go away. The nice thing about Connect is we can also use it to archive documents, save announcements, and such, much like your Canvas or Blackboard site.

Finally, I am pleased to announce that we have sponsored a gift for Janet Beery on behalf of the SIGMAA, current editors of *Convergence* Janet Barnett and Amy Ackerberg-Hastings, and the editorial board of *Convergence* in recognition of her ten years of tireless dedication to *Convergence*. A Math Treasure was printed for framing, as well as a photograph of Janet as a new faculty member that was taken by Paul Halmos. Members may remember that the HOM SIGMAA funded a large part of the archiving of the Halmos photographs a few years back at the Archives of American Mathematics. Janet, we cannot thank you enough for your time as editor of *Convergence*!



Happy 2020!

Amy Shell-Gellasch

Chair, HOM SIGMAA

What HOM Sessions Would You Like to See at Future MAA Meetings?

Keeping in mind that paper sessions, panel discussions, and special lectures are approved about a year in advance, please share your ideas for HOM events at the JMM and MathFest with HOM SIGMAA Program Coordinator Toke Knudsen at toke.knudsen@oneonta.edu. Also, please contact him if you are willing to organize or co-organize such an event, or are interested in helping out in any way, big or small, with HOM SIGMAA programs. All suggestions are welcome!

Original Reading Event at MathFest a Success

At MathFest 2019 in Cincinnati, more than 60 people participated in an exciting and engaging open session, titled **Read the Masters: Euler's *Introductio ad analysin***. The organizers of the event, Erik Tou (University of Washington, Tacoma; Euler Society), Danny Otero (Xavier University; ORESME, and TRIUMPHS), Lawrence D'Antonio (Ramapo College; Euler Society), Rob Bradley (Adelphi University; ARITHMOS), and Amy Shell-Gellasch (Eastern Michigan University; HOM SIGMAA), are hoping that this will be the first of many similar sessions to take place at future MathFests. The session began with brief introductory remarks by V. Fred Rickey (USMA) on the process of reading original historical sources in mathematics, including tips on what to pay attention to in locating and working with older publications; the benefits of working with multiple editions and original languages (even if you lack the requisite language skills); the joy of participating in reading groups that tackle readings of this kind on a regular basis; and a few words about the text at hand in this session, a selection on the exponential and logarithmic functions, from Euler's famous *Introductio ad analysin* (1748). After Prof. Rickey's remarks, participants spent over an hour at tables of 7-8 people reading through Blanton's 1988 English translation of Chapters 7 and 8 of Euler's *Introductio*, making sense of what they found in the text and comparing that against how we talk about these topics in today's classrooms. The session ended with about 15-20 minutes of general discussion to process some of the issues that arose in the reading. (Contributed by Danny Otero)

2020 HOM SIGMAA Executive Committee

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Past Chair: Daniel Otero, Xavier University

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Save these dates for future MAA meetings!

Summer 2020	Philadelphia, PA	July 29-Aug1
Winter 2021	Washington, DC	January 6-9
Summer 2021	Sacramento, CA	August 4-7
Summer 2022	Washington, DC	August 3-6
Summer 2023	Tampa, FL	August 2-5

Convergence Calendar

Visit https://www.maa.org/press/periodicals/convergence/convergence-calendar for a list of events and meetings around the world which relate to the History of Mathematics.

Small grants for the history of mathematics classroom are available

HOM members who need some help to purchase items for use in the teaching of the history of mathematics are encouraged to apply for a small grant. Information on how to apply can be found on our website http://sigmaa.maa.org/hom/ .

People, Places, Practices is the 5-yearly joint conference of the British Society for the History of Mathematics and Canadian Society for History and Philosophy of Mathematics/La Société Canadienne d'Histoire et de Philosophie des Mathématiques, in collaboration with HOM-SIGMAA, the History of Mathematics Special Interest Group of the MAA.

The conference is hosted by the School of Mathematics and Statistics, St Andrews University, the home of the MacTutor History of Mathematics Archive. All are welcome to the conference. You need not be a member (though registration rates are lower for members)

An **Education Strand** will run on 6-7 July. This will provide practical talks and workshops for those teaching the 15+ age group. The programme will be designed to minimise accommodation costs (0 or 1 night) and we are exploring ways of enabling remote participation.

The meeting will be co-located with the Eleventh Conference on Mathematical Cultures and Practices (MC&P-XI, 8-10th July 2020). The two events will overlap on the afternoon of 8th July.

Confirmed Speakers include:

- Karen Parshall (University of Virginia)
- Edmund Robertson (University of St Andrews)
- Colm Mulcahy (Spelman College)
- Brendan Larvor (University of Hertfordshire)
- Serafina Cuomo (University of Durham)
- Valeria Giardino (University of Lorraine)
- Robin Wilson (Open University)
- Évelyne Barbin (University of Nantes)

Registration. The registration fee includes a conference pack, teas & coffees on all three days, and buffet lunch on all three days. Early bird rates are available until 31 March 2020. HOM SIGMAA members receive a reduced rate.

The conference webpage can be found at

http://www.mcs.st-andrews.ac.uk/bshm-cshpm/index.shtml

Shares Student Activities

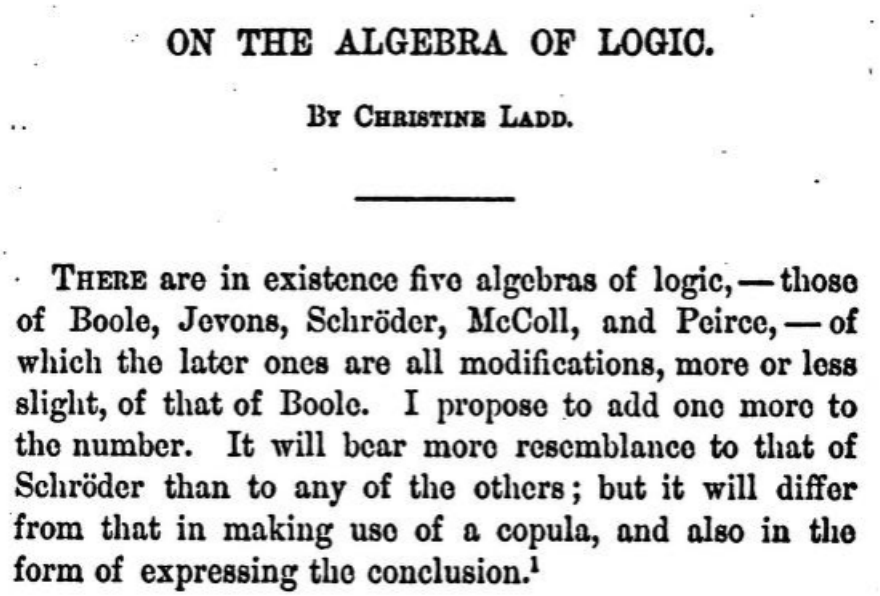
Janet Barnett, and Amy Ackerberg-Hastings

Editors, *MAA Convergence*

MAA Convergence is both an online journal on the history of mathematics and its use in teaching, and an ever-expanding collection of online resources to help its readers teach mathematics using its history. We highlight here some of our newest articles and features.

In "To Simplify, or Not To Simplify? A Lesson from Medieval Iraq," Valerio De Angelis and Jeffrey A. Oaks discuss a case where not simplifying fractions explains a curious rule for computing cube roots from medieval Arabic mathematics. The article includes student exercises that explore the rule as it was presented in some manuscript copies of the 10th-century *Epistles* of the Brethren of Purity (Ikhwān āl-Ṣafa').

Meanwhile, as your students prepare for the HOM SIGMAA Student Writing Contest, they and you can check out Julia M. Parker's application of Richard Delaware's technique of explication to a portion of the famous Johns Hopkins dissertation by Christine Ladd in "An Explication of the Antilogism in Christine Ladd-Franklin's 'Algebra of Logic'." To review the research and writing tips Delaware wrote early last year, visit "More than just a Grade: The HOM-SIGMAA Student Contest Fosters Writing Excellence at UMKC."



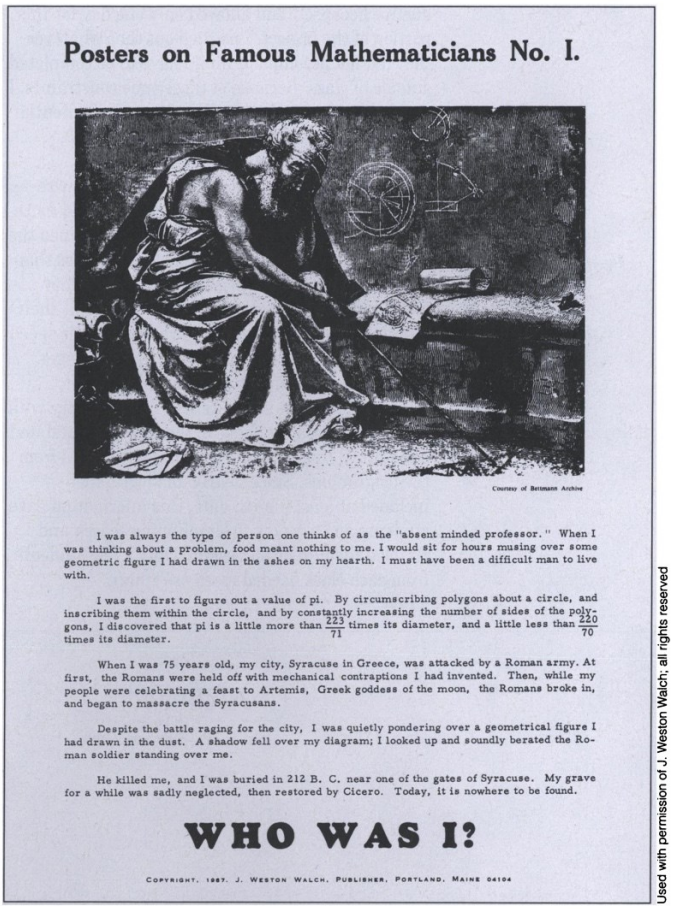
ON THE ALGEBRA OF LOGIC.

BY CHRISTINE LADD.

THERE are in existence five algebras of logic, — those of Boole, Jevons, Schröder, McColl, and Peirce, — of which the later ones are all modifications, more or less slight, of that of Boole. I propose to add one more to the number. It will bear more resemblance to that of Schröder than to any of the others; but it will differ from that in making use of a copula, and also in the form of expressing the conclusion.[1]

Above: Opening paragraph of Ladd's 1883 dissertation, "On the Algebra of Logic."

Convergence is further delighted to share two articles with historical content from NCTM's *Mathematics Teacher*, "Bringing Historical Methods for Astronomical Measurements into the Classroom" by Seán P. Madden, Jocelyne M. Comstock, and James P. Downing, and "Correspondence from Mathematicians" by Jennifer Horn, Amy Zamierowski, and Rita Barger. These articles describe activities, suitable for use in a variety of classroom settings, which respectively expose students to astronomical measurement methods attributed to Eratosthenes, Ptolemy, and Galileo, and to the origins of familiar mathematical concepts. We also simultaneously published the latest work by crossword puzzlers Sid Kolpas and Stu Ockman, "Here's Looking at Euclid," with MAA's undergraduate magazine *Math Horizons*.



Posters on Famous Mathematicians No. I.

Courtesy of Bettmann Archive

I was always the type of person one thinks of as the "absent minded professor." When I was thinking about a problem, food meant nothing to me. I would sit for hours musing over some geometric figure I had drawn in the ashes on my hearth. I must have been a difficult man to live with.

I was the first to figure out a value of pi. By circumscribing polygons about a circle, and inscribing them within the circle, and by constantly increasing the number of sides of the polygons, I discovered that pi is a little more than $\frac{223}{71}$ times its diameter, and a little less than $\frac{220}{70}$ times its diameter.

When I was 75 years old, my city, Syracuse in Greece, was attacked by a Roman army. At first, the Romans were held off with mechanical contraptions I had invented. Then, while my people were celebrating a feast to Artemis, Greek goddess of the moon, the Romans broke in, and began to massacre the Syracusans.

Despite the battle raging for the city, I was quietly pondering over a geometrical figure I had drawn in the dust. A shadow fell over my diagram; I looked up and soundly berated the Roman soldier standing over me.

He killed me, and I was buried in 212 B. C. near one of the gates of Syracuse. My grave for a while was sadly neglected, then restored by Cicero. Today, it is nowhere to be found.

WHO WAS I?

Fig. 2
Sample poster

Above: A suggested source for helping students choose a famous mathematician to research and role-play from “Correspondence from Mathematicians.”

Convergence continues to feature several ongoing series and collections, including:

- “Math Origins,” in which author Erik Tou traces the historical development of concepts seen in today's undergraduate curriculum. The most recent article, The Logical Symbols, looks at how mathematicians and logicians of the 19th and 20th centuries sought to bring mathematical logic together as a professional discipline through a common system of symbols and definitions.

- “A Series of Mini-projects from **TR**ansforming **I**nstruction in **U**ndergraduate **M**athematics via **P**rimary **H**istorical **S**ources” which currently offers thirteen mini-Primary Source Projects (PSPs) from the TRIUMPHS team for use in a variety of courses. The most recent PSPs to join the series are:
  - “Euler's Calculation of the Sum of the Reciprocals of the Squares: A Mini-Primary Source Project for Calculus II Students” (by Kenneth M Monks)
  - “Completing the Square: From the Roots of Algebra, A Mini-Primary Source Project for Students of Algebra and Their Teachers” (by Daniel E. Otero)

  - “Regression to the Mean: A Mini-Primary Source Project for Statistics Students” (by Dominic Klyve)

- Our new index of all of the mathematical objects (from Mesopotamian counting tokens of the 4th millennium BCE to plastic blackboard triangles manufactured at the end of the 2nd millennium CE) that are posted in the journal, which joins our ever-growing "Index to Mathematical Treasures" that provides hundreds of images for use in your classroom from dozens of libraries and archives. Our chief "treasure hunter" is *Convergence* founding editor Frank Swetz.

See all of these articles and more at *MAA Convergence:*

http://www.maa.org/press/periodicals/convergence.

Interested in contributing? We'd love to hear from you! *Convergence* publishes expository articles on the history of topics in the grades 8–16 mathematics curriculum; translations of primary sources; classroom activities, projects, or modules for using history to teach mathematics; and classroom testimonials after applications of such activities, projects, or modules. Additionally, we welcome submissions related to the following *Convergence* features:

- "Problems from Another Time," highlighting historical problems.
- "On This Day," a listing of three or four historic mathematical events that happened on any given date.
- "Today's Quotation," a quotation about mathematics from a historical figure selected from a searchable database of quotations.
- "Conference Calendar," an up-to-date guide to conferences and events around the world that feature or include the history of mathematics and its use in teaching.

For more details, see our Guidelines for Authors at
https://www.maa.org/press/periodicals/convergence/guidelines-for-convergence-authors.

Visit the HOM SIGMAA website today!!!

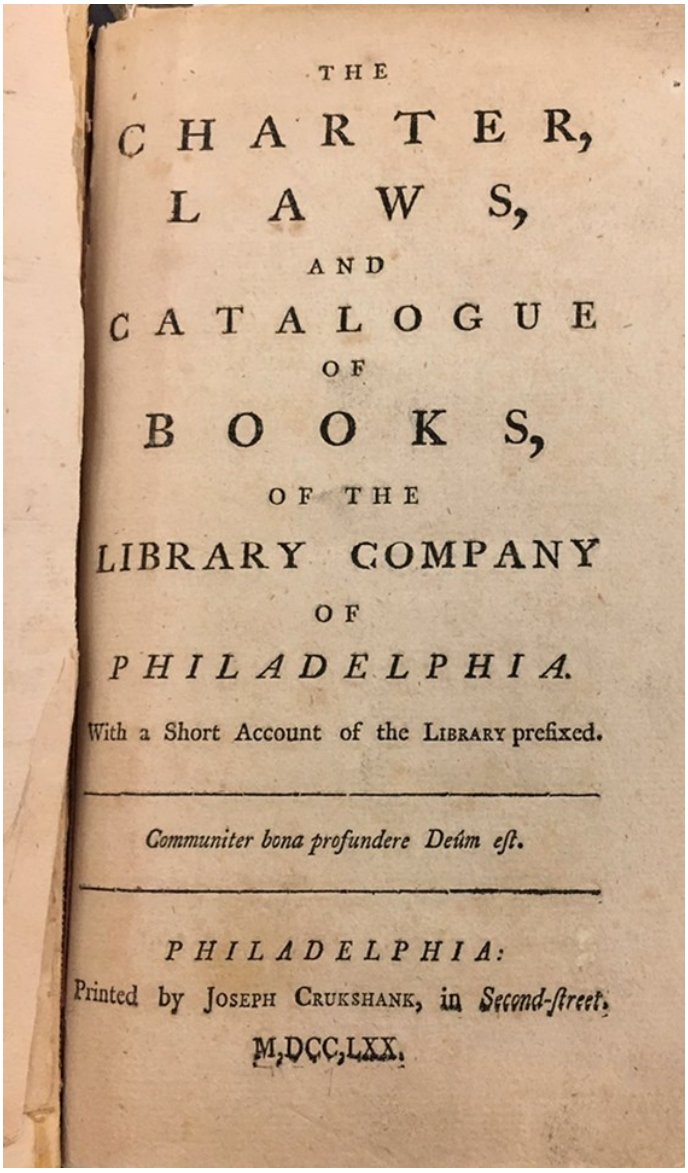
The HOM SIGMAA website (http://sigmaa.maa.org/hom/) includes HOM SIGMAA news, announcements of upcoming conferences, links to other history of mathematics pages, and other resources. Suggested additions to the website (for example, conference information, links, or photos) are always welcome at aperry@springfieldcollege.edu.

A feature of the HOM SIGMAA Newsletter is a review of a museum or library with an exhibit or collection related to the History of Mathematics. If you would like to submit an article for HOM on Display, please send it to Cynthia Huffman at cjhuffman@pittstate.edu.

The Mathematical Subset of the 1770 Catalogue of the Library Company of Philadelphia

by M.W. Alexander

A recent call for library reviews in a HOM-SIGMAA newsletter (Vol. IX, No.1, Feb., 2019) brought a smile to my lips; I had just spent a good week reviewing a library … as a mathematical resource for someone back in the 1770-1790's in Philadelphia. What mathematical resources were available to inquisitive minds of the time, such as David Rittenhouse's (1732-1796)?



THE
CHARTER,
LAWS,
AND
CATALOGUE
OF
BOOKS,
OF THE
LIBRARY COMPANY
OF
PHILADELPHIA.
With a Short Account of the LIBRARY prefixed.

Communiter bona profundere Deúm eſt.

PHILADELPHIA:
Printed by JOSEPH CRUKSHANK, in *Second-ſtreet.*
M,DCC,LXX.

Figure 1 Title page of the 1770 Catalogue of the Library Company of Philadelphia.

In 1769, Rittenhouse had made a name for himself and the newly reformed American Philosophical Society (APS) by his coordination of the Philadelphian observation of the Transit of Venus; he would go on to write two mathematical papers, in 1793[1] and 1795[2]. One of the papers, addressed to Robert Patterson (1743-1824), professor of mathematics at the College of Philadelphia, asked whether he could prove the results now commonly known as Wallis' products. The other advanced a new technique for approximating logarithms, using continued fractions.

Where could this "self-taught genius"[3] have found materials leading up to his observations? The library of the APS might seem to be the logical place, but in 1770 it barely existed. Rittenhouse himself was declared its caretaker in 1773 and most probably kept the few shelves of that collection in his own house through the course of the Revolution until 1790[4]. What other resources were to hand, for a Philadelphian without the wherewithal to purchase his own grand library, like Jefferson's? At a later date, Rittenhouse did borrow books and journals from Jefferson's collection at Monticello, via the stage[5], but what books or journals were closer to hand? With that goal in mind, I went to the Library Company of Philadelphia to inquire.

Unlike the APS Library, which didn't have anything close to a catalogue until the 1800's, the Library Company's catalogues were bound books themselves, from the 1740's onward. Original copies of the 1770 Catalogue of the Library Company of Philadelphia are available for your perusal in the pleasant reading room of the Library Company (or online at http://www.librarycompany.org). I made the following list of all the materials from that catalogue that could possibly have served as mathematical resources for Rittenhouse, Patterson, and others allowed to use the Library Company of Philadelphia in the 1760's-90's[6]. It occurred to me that other researchers of 18th century British/American mathematical history might find this subset of the 1770 Catalogue handy and telling.

As for David Rittenhouse, could the Library Company have provided him with information about Wallis products or continued fractions? In the W's, he may have found this reference to Wallis' Treatise of Algebra, both historical and practical:

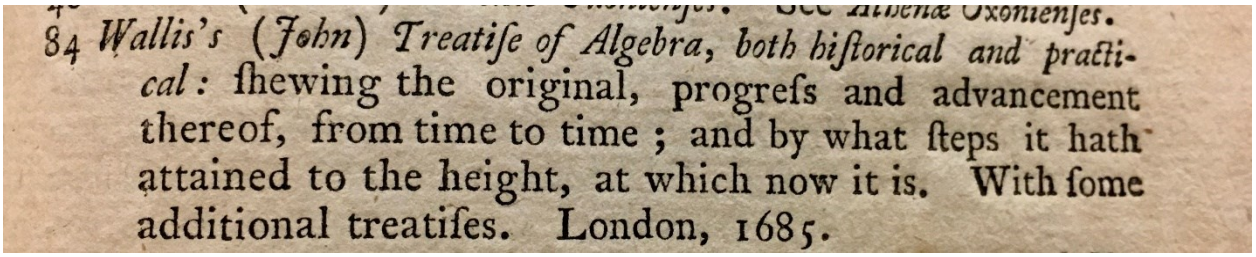
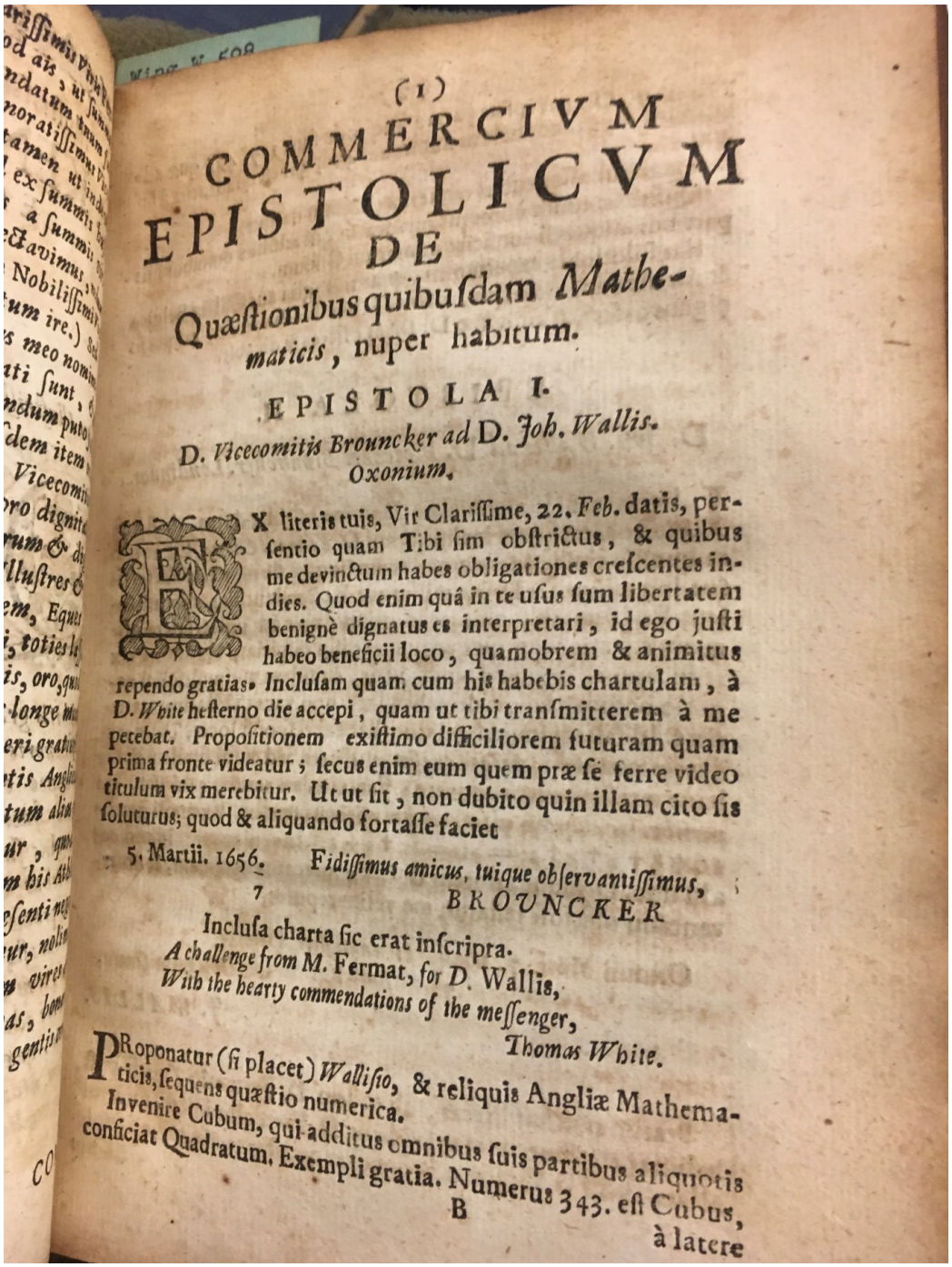

84 Wallis's (John) Treatise of Algebra, both historical and practical: shewing the original, progress and advancement thereof, from time to time; and by what steps it hath attained to the height, at which now it is. With some additional treatises. London, 1685.

Figure 2: From the W's of the 1770 Catalogue of the Library Company.

[1] Rittenhouse, David. Relative to a method of finding the sum of the Several powers of the Sines. Transactions of the American Philosophical Society, 3, (1793), 155-156.
[2] Rittenhouse, David. Method of raising the common logarithm of any number immediately, Transactions of the American Philosophical Society, 4, (read to the Society in 1795; published posthumously in 1799), 69-71.
[3] "An eulogium, intended to perpetuate the memory of David Rittenhouse, late president of the American Philosophical Society, delivered before the Society in the First Presbyterian Church, in High-Street, Philadelphia, on 17th Dec. 1796..." by Benjamin Rush (1746-1813).

[4] Smith, Murphy D. (1976) Oak from an Acorn: A History of the American Philosophical Society Library. Scholarly Resources, Inc., Wilmington, Delaware, p. 6.
[5] Jefferson (1791) "Monday morn" Letter to David Rittenhouse (probably on 21 March 1791) in the folder "Rough calculations" of David Rittenhouse, Archives of the APS.
[6] Apart from shareholders, "non-members could borrow books by depositing their value as security",p14, and "Women were never officially excluded from using the Library..." p. 18, from "At the Instance of Benjamin Franklin": A Brief History of the Library Company of Philadelphia. Revised and enlarged edition, Philadelphia: Library Company. Written in 1976 by Edwin Wolf and expanded in 1995 by John Van Horne, James N. Green, and Marie Korey.

How gratifying it was for me, in 2019, to find the same book still on the Library Company's shelves and in such beautiful condition. The reference to "some additional treatises" includes some knockouts, such as the Commercium Epistolicum, with its teaser of a challenge to Wallis from Fermat:



(1)

COMMERCIVM EPISTOLICVM DE Quæstionibus quibusdam Mathematicis, nuper habitum.

EPISTOLA I.

D. Vicecomitis Brouncker ad D. Joh. Wallis. Oxonium.

EX literis tuis, Vir Clarissime, 22. Feb. datis, persentio quam Tibi sim obstrictus, & quibus me devinctum habes obligationes crescentes indies. Quod enim quâ in te usus sum libertatem benignè dignatus es interpretari, id ego justi habeo beneficii loco, quamobrem & animitus rependo gratias. Inclusam quam cum his habebis chartulam, à D. White hesterno die accepi, quam ut tibi transmitterem à me petebat. Propositionem existimo difficiliorem futuram quam prima fronte videatur; secus enim eum quem præ se ferre video titulum vix merebitur. Ut ut sit, non dubito quin illam cito sis soluturus; quod & aliquando fortasse faciet

5. Martii. 1656. 7

Fidissimus amicus, tuique observantissimus, BROUNCKER

Inclusa charta sic erat inscripta.
A challenge from M. Fermat, for D. Wallis,
With the hearty commendations of the messenger,
Thomas White.

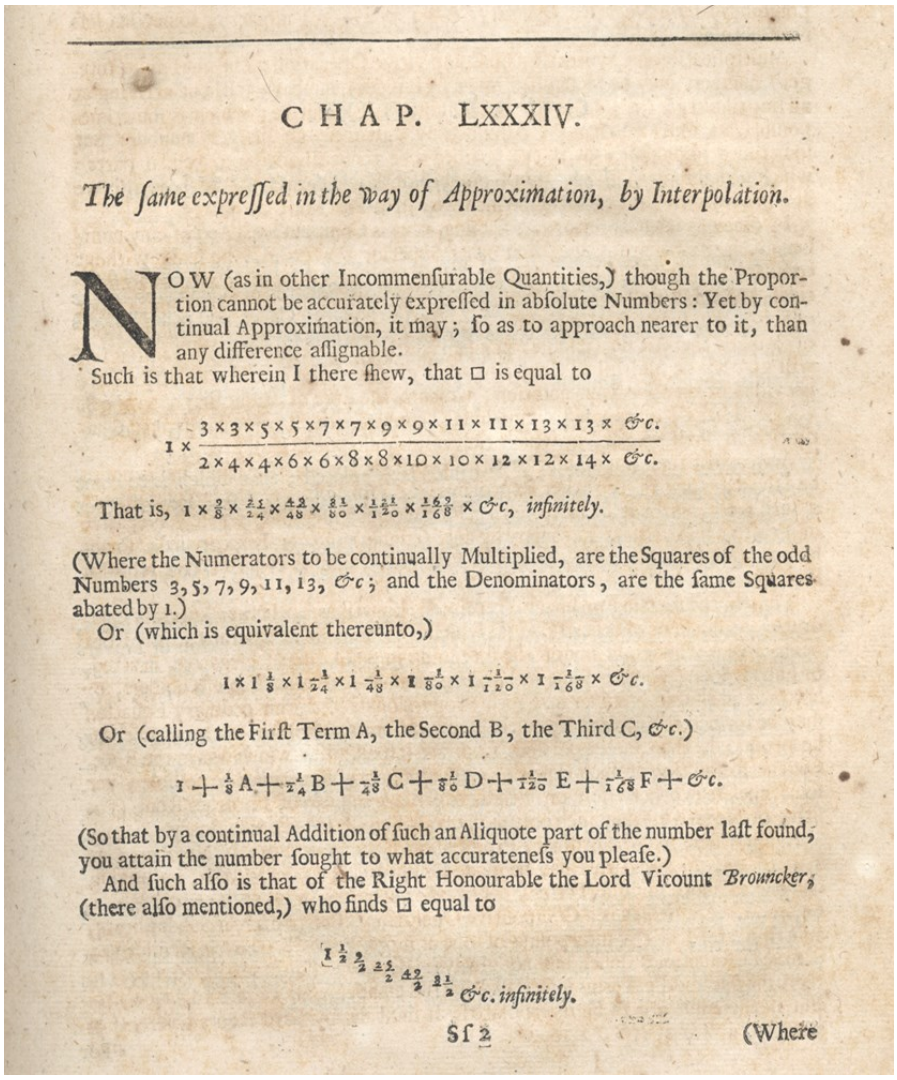
PRoponatur (si placet) Wallisio, & reliquis Angliæ Mathematicis, sequens quæstio numerica.
Invenire Cubum, qui additus omnibus suis partibus aliquotis conficiat Quadratum. Exempli gratia. Numerus 343. est Cubus,

B

à latere

Figure 3: Wallis' Epistolicum Commercium within the same volume as the Treatise of Algebra

Among the many other fascinating things in Wallis' 1685 work, there is, on p. 317, reference to both Wallis' products and to continued fractions. Rittenhouse's papers of 1793 and 1795 do not make reference to these pages, but he did become a shareholder of the Library Company by 1789.



CHAP. LXXXIV.

The ſame expreſſed in the way of Approximation, by Interpolation.

NOW (as in other Incommenſurable Quantities,) though the Proportion cannot be accurately expreſſed in abſolute Numbers: Yet by continual Approximation, it may; ſo as to approach nearer to it, than any difference aſſignable.

Such is that wherein I there ſhew, that □ is equal to

$$1 \times \frac{3\times3\times5\times5\times7\times7\times9\times9\times11\times11\times13\times13\times \&c.}{2\times4\times4\times6\times6\times8\times8\times10\times10\times12\times12\times14\times \&c.}$$

That is, $1\times\frac{3}{8}\times\frac{15}{24}\times\frac{42}{48}\times\frac{81}{80}\times\frac{121}{120}\times\frac{169}{168}\times \&c$, *infinitely.*

(Where the Numerators to be continually Multiplied, are the Squares of the odd Numbers 3, 5, 7, 9, 11, 13, &c; and the Denominators, are the ſame Squares abated by 1.)

Or (which is equivalent thereunto,)

$$1\times1\tfrac{1}{8}\times1\tfrac{1}{24}\times1\tfrac{1}{48}\times1\tfrac{1}{80}\times1\tfrac{1}{120}\times1\tfrac{1}{168}\times \&c.$$

Or (calling the Firſt Term A, the Second B, the Third C, &c.)

$$1+\tfrac{1}{8}A+\tfrac{1}{24}B+\tfrac{1}{48}C+\tfrac{1}{80}D+\tfrac{1}{120}E+\tfrac{1}{168}F+\&c.$$

(So that by a continual Addition of ſuch an Aliquote part of the number laſt found, you attain the number ſought to what accurateneſs you pleaſe.)

And ſuch alſo is that of the Right Honourable the Lord Vicount *Brouncker*, (there alſo mentioned,) who finds □ equal to

$$1\tfrac{1}{2}\tfrac{9}{2}\tfrac{25}{2}\tfrac{49}{2}\tfrac{81}{2}\ \&c.\ \textit{infinitely.}$$

Sſ 2 (Where

Figure 4: Reproduction from Wallis' Treatise of Algebra thanks to The Library Company of Philadelphia http://www.librarycompany.org

Notes, Disclaimers, and Thanks:

1. The following list is just a subset of The Charter Laws, and Catalogue of Books, of the Library Company of Philadephia, published by Joseph Cruikshank in Philadelphia in 1770. It may be an imperfect subset, since how such works were titled (and then chosen to be catalogued) was not as straightforward as one might imagine. For example, to find the Transactions of the Royal Society, one would have had to have known to "look in the P's," for

   > "161 Philosophical (The) Transactions of the Royal Society, the experiments they have tried, improvements they have made, and accounts they have received from foreign parts to the year 1758. Abridged by Lowthorp, Jones, and others, with many cuts. 30 vols."

2. The leading number in each entry is presumed to be the catalogue number for the book, apparently in order of acquisition by the Library Company of Philadelphia. The catalogue is alphabetized, but within each letter, the books are divided (by size) into the categories "Folio, Quarto, Octavo, and Duodecimo."[7]

[7] Ibid, p. 18

3. There may, of course, have been several other very good mathematical resources (journals, say) available at the Library Company in the 1760's that did not make it into this 1770 Catalogue. Was the distinction that one was bound while the others not? Not exactly: under the P's, there are 134 pamphlet listings (most being non-mathematical) and presumably not bound. In other words, (and to put it a bit mathematically) there exist inconsistencies in the 1770 catalogue; therefore, there may be inconsistencies in this subset. (If only it were possible to so excuse any other inconsistencies I, myself, may have introduced.)

4. Although it is true that the 1770 atalogue of the Library Company of Philadelphia is available online, understanding how to read it and what it actually represents is not as instantaneous. For my education in these matters, I owe a great deal to Cornelia King, Chief of Reference, and James Green, Librarian, of the Library Company.

The Mathematical Subset of "The Charter Laws, and Catalogue of Books, of the Library Company of Philadelphia, … Printed by Joseph Crukshank, in Second-Street. MDCCLXX."

A

Folio

81 Algebra. (Elements of) See Kersey's (John) Elements, &c.
84 _____ (Treatise of) See Wallace's (John) Treatise of Algebra.

Quarto

5 Astronomical Tables; with precepts, both in English and Latin, for computing the places of the fun, moon, planets, and comets. By Edmund Halley, L.L.D. late royal professor of Astronomy at Greenwich. London, 1752.
26 Astronomy explained upon Sir Isaac Newton's Principles, and made easy to those who have not studied Mathematicks. By James Ferguson. The 2d edition. London, 1757.
36 Algebra. See Dissertation (A) on the Use, &c.
118 Account (An) of Sir Isaac Newton's Philosophical Discoveries, By Collin McLaurin, A.M. &c. Published from the author's manuscript papers, by Patrick Murdoch, M.A. and F.R.S. London, 1748.
176 Arithmetick. (A new System of) See Malcolm's (Alexander) new System of Arithmetick, &c.

Octavo

296 Arithmetick. See Wingate's (Edmund) plain and familiar method, &c.
307 Arithmetick. See Donn's (Benjamin) new Introduction, &c.
397 Astronomy, (The Elements of) Physical and Geometrical. By David Gregory, M.D. and F.R.S. to which is annexed, Dr. Hally's Synopsis of the Astronomy of Comets. 2 vols. London 1715.
432 Astronomy: (An Introduction to the true) or , astronomical lectures, read in the astronomical school of the university of Oxford; by John Keil, F.R.S. professor of astronomy in that university. The 2d edition. London, 1730.
510 Arithmetick, both in theory and practice, made plain and easy in all the common and useful rules, both in whole number and fractions, vulgar and decimal: also Interest, simple and compound; and Annuities. By *John Hill*, gent. with a Preface by Mr. *Henry Dutton*. The 6th edition. Londton, 1736.
526 Algebra (The Elements of) in a new and easy method, with their use and application in the solution of a great variety of arithmetical and geometrical questions, by general and universal rules: to which is prefix'd, an Introduction containing a succinct Account of this Science. By Mr. Nathaniel Hammond. London, 1742.
840 Arts and Sciences. (The General Magazine of) See Magazine.
962 Arithmetick. (Universal) See Newton's (Sir Isaac) Universal Arithmetick.

Duodecimo

160 Arithmetic, in two parts; containing, I. A System of the Art, in Memorial Verses, and Dictionary-wife. II. A Collection of Exercises, accommodated to the various occasions of business, and contriv'd for the ease of Teachers. By Solomon Lowe, School-Master. London, 1749.

349 Algebraist's Companion; (The Young) or, a new and easy guide to Algebra; introduced by the doctrine of vulgar fractions: designed for the use of schools, and such who , by their own application only, would become acquainted with the rudiments of this noble science. The 3d edition. To which is added, an Appendix on the rudiments of Quadratick Equations, &c. By Daniel Fenning. London, 1759.

381 Arithmetick in the plainest and most concife Methods hitherto extant; with new Improvements, for dispatch of business, in all the several rules. As also Fractions vulgar and decimal, wrought together after a new method, that renders both easy to be understood in their nature and use. By George Fisher, Accomptant. The 7th edition. London, 1748.

475 *Algebra. (A new short Treatise of*) See *Harris*', &c.

B

Folio

154 Barrow's (Isaac) Works. See Works (The) of the learned Isaac Barrow.

174 Bion's Construction, &c. of mathematical Instruments. See Mathematical.

Quatro

59 Birch's (Thomas) History of the Royal Society of London, for improving of Natural Knowledge, from its first Rife. IN which the most considerable of those papers, communicated to the Society, which have hitherto not been published , are inserted in their proper order, as a Supplement to the Philosophical Transactions. 4 vols. London, 1756.

Octavo

302 Baddam's Memoirs of the Royal Society. See Royal Society.

663 Barrow's (Isaac) Mathematical Lectures. See Mathematical, &c.

C

Folio

174 Construction (The) and principal Uses of mathematical Instruments. Translated from the French of M. Bion, chief Instrument Maker to the French King. To which are added, the Construction and Uses of such Instruments as are omitted by M. Bion, particularly those invented or improved by the English. By Edmund Stone. The whole illustrated with copper plates. The 2d edition. London, 1758.

Quarto

175 Conick Sections, (An analytick Treatise of) and their use for resolving of equations in determinate and indeterminate problems: being the posthumous Works of the Marquis De L'Hospital ; made English by E. Stone. London, 1723.

Octavo

297 Cunn. (Euclid's Elements of Geometry by Samuel) See Euclid.

Duodecimo

D

Folio

27 Dictionary of the Arts and Sciences: (The Universal) containing an explanation of the terms; the rise, progress and state of things ecclesiastical, civil, military and commercial; the several systems, facts, opinions, &c. among philosophers, divines, mathematicians, physicians, antiquarians, critics, &c. The whole intended as a course of ancient and modern learning. By Mr. Chambers. The 2d edition. 2 vols. London, 1738. With a Supplement to said Dictionary. 2 vols. London, 1753. In all, four Volumes.

Quarto

86 Dissertation on the Use of the negative Sign in Algebra; co'ntaining a demonstration of the rules usually given concerning it; and shewing how quadratic and cubic equations may be explained, without the consideration of the negative roots. To which is added an Appendix, Mr. Machin's Quadrature of the Circle. By Francis Maseres, A.M. London, 1758.

Octavo

30 Dictionary (A new and complete) of Arts and Sciences; comprehending all the branches of human knowledge. The whole extracted from the best authors in all languages. Illustrated with copper plates. By a Society of Gentlemen. 4 vols. London, 1763.

99 Degre du Meredien entre Paris et Amiens, determine, par la Mesure de M. Picard, &c. par les Observations de Mrs. de Maupertius, Clairaut, Camus, le Monnier, de l'Academie Royale des Sciences: d'ou l'on deduit la Figure de la Terre, par la comparaison de ce Degre avec ce lui qui a ete mesure au Cercle Polaire. Paris, 1740.

307 Donn's (Benjamin) new Introduction to the Mathematicks; being essays on vulgar and decimal arithmetic; containing not only the practical rules, but also the reasons and demonstrations of them. London, 1758.

Duodecimo

80 *Duncan : (The Elements of Logick; by William*) designed particularly for young Gentlemen at the University, and to prepare the Way to the Study of Philosophy and the Mathematics. The 3d edition. London, 1752. (The Gift of Mr. Andrew Burr.)

236 *Dodson's (James) Mathematical Repository*; containing analytical solutions of 500 questions, mostly selected from scarce and valuable authors; designed to conduct Beginners to the more difficult properties of numbers. 3 vols. London, 1748.

Dictionary : (A compleat mathematical) explaining all the parts of the Mathematicks, with all the terms

of art and difficult phrases, rendered plain and easie to every capacity. By J. Moxon. London, 1701.

E

Folio

Quatro

77 Euclid, (The Elements of) viz. the first six books, together with the eleventh and twelfth. In this edition the errors by which Theon, or others, have long ago vitiated these books, are corrected; and some of Euclid's demonstrations are restored. By Robert Simpson, M.D. –Glasgow, 1756. (The Gift of the Editor.)

Octavo

297 Euclid's Elements of Geometry, from the Latin translation of Commandine. To which is added, a Treatise of the Nature and Arithmetic of Logarithms; likewise another, of the Elements of Trigonometry. By Samuel Cunn. The 8th edition. 2 vols. London, 1759.

491 Emerson's (William) Principles of Mechanicks; explaining and demonstrating the general laws of motion, the laws of gravity, motion of defending bodies, &c. London, 1754.

630 Euclid, (The Elements of) with select theorems out of Archimedes, by the learned Andrew Tacquert. To which are added, Practical Corollaries, shewing the uses of many of the propositions. By William Whiston. With an Appendix of Practical Geometry. Dublin, 1728. (The gift of Mr. D. Buth.)

923 Euclid, (The Elements of) explained in a new but most easy method; together with the use of every proposition through all the parts of the mathematicks. Written in the French, by F. Claude Francis Milliet de Chales. The 7th edition. 1726.

Duodecimo

385 Everard's (Thomas) Art of Gauging, made easy by the help of a Sliding Rule: with an Appendix of Conic Sections. The 11th edition. London, 1750.

F

Folio

13 Flamsteedii, A.R. (Johannis) Historia Caelestis Britannica… 3 Volumina. Londini, 1728.
(see photographic image of this very long entry, Figure 5 to the right).

221 Fluxions ; (A Treatise on) containing a full explication of the method by which the most celebrated Geometers of the present age have made such vast advances in the mechanical and mathematical philosophy; very useful to such as would apply mathematics in nature. By Charles Hayes, Gent. London, 1704.

Quarto

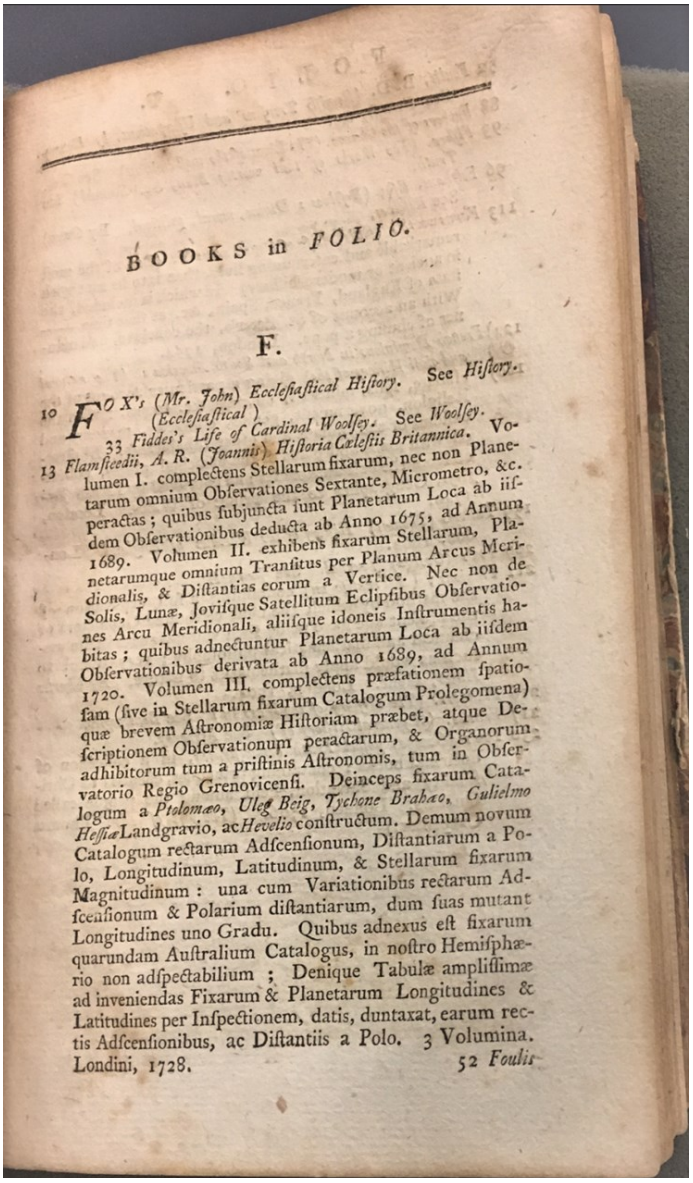
26 *Ferguson's Astronomy explained*, &c. See Astronomy explained, &c.

91 *Ferguson's (James) Lectures on Select Subjects* in Mechanics, Hydrostatics, Pneumatics, and Optics; with the use of the globes; the art of dialling, the and the calculation of the mean times of new and full moons and eclipses. London, 1764.

92 *Ferguson's Lectures (A Supplement on Mr.*) on Mechanics, &c. containing thirteen copper plates, with descriptions of the machinery, which he has added to his apparatus, since tha book was printed. London, 1767.

Octavo

33 *Fluxions. (An Introduction to the Doctrine of)* By John Rowe. The 2d edition, London, 1757.



BOOKS in FOLIO.

F.

10 FOX's (Mr. John) Ecclesiastical History. See History. (Ecclesiastical)

33 Fiddes's Life of Cardinal Woolsey. See Woolsey.

13 Flamsteedii, A. R. (Joannis) Historia Cœlestis Britannica. Volumen I. complectens Stellarum fixarum, nec non Planetarum omnium Observationes Sextante, Micrometro, &c. peractas; quibus subjuncta sunt Planetarum Loca ab iisdem Observationibus deducta ab Anno 1675, ad Annum 1689. Volumen II. exhibens fixarum Stellarum, Planetarumque omnium Transitus per Planum Arcus Meridionalis, & Distantias eorum a Vertice. Nec non de Solis, Lunæ, Jovisque Satellitum Eclipsibus Observationes Arcu Meridionali, aliisque idoneis Instrumentis habitas; quibus adnectuntur Planetarum Loca ab iisdem Observationibus derivata ab Anno 1689, ad Annum 1720. Volumen III. complectens præfationem spatiosam (sive in Stellarum fixarum Catalogum Prolegomena) quæ brevem Astronomiæ Historiam præbet, atque Descriptionem Observationum peractarum, & Organorum adhibitorum tum a pristinis Astronomis, tum in Observatorio Regio Grenovicensi. Deinceps fixarum Catalogum a *Ptolomæo*, *Ulegh Beig*, *Tychone Brahæo*, *Gulielmo Hessiæ* Landgravio, ac *Hevelio* constructum. Demum novum Catalogum rectarum Adscensionum, Distantiarum a Polo, Longitudinum, Latitudinum, & Stellarum fixarum Magnitudinum: una cum Variationibus rectarum Adscensionum & Polarium distantiarum, dum suas mutant Longitudines uno Gradu. Quibus adnexus est fixarum quarundam Australium Catalogus, in nostro Hemisphærio non adspectabilium; Denique Tabulæ amplissimæ ad inveniendas Fixarum & Planetarum Longitudines & Latitudines per Inspectionem, datis, duntaxat, earum rectis Adscensionibus, ac Distantiis a Polo. 3 Volumina. Londini, 1728.

52 *Foulis*

Figure 5 The longest listing, under " Flamsteedii

844 *Fluxions, (The Method of*) applied to a select number of useful problems; together with a demonstration of Mr. *Cotes*'s forms of Fluents, in the second part of his Logometria; - the Analysis of the problems in his Scolium Generale ; - and an Explanation of the principal propositions of Sir Isaac Newton's philosophy. By Nicholas Saunderson, L.L.D. & c. London, 1756.

G

Folio

190 *Geometry; (Practical*) applied to the useful arts of building, gardening, and mensuration; calculated for the use of Gentlemen as well as Artisans. By Batty Langley, the 2d edition. London, 1729.

Quatro

s'Gravesande's (James) Mathematical Elements of Natural Philosophy, confirmed by Experiments: or, an Introduction to Sir Isaac Newton's Philosophy. Written in Latin.
Translated into English, by the lalte I.T. Desaguliers, L.L.D., F.R.S. The 6th edition. 2 vols. London, 1747.

Duodecimo

488 *Geometry. (Short but yet plain Elements of*) Written in French by *F. Ignat. Gaston Pardies*: and rendered into English by *John Harris*, D.D. The 7th edition. London, 1734.

H

Quarto

5 Halley's (Edmund) Astronomical Tables. See Astronomical Tables.
21 Hill's Review of the Works of the Royal Society. See Royal Society.
175 Hospital's (The Marquis De L') Treatise of the Conic Sections. - See Conic, &c.

Duodecimo

98 Hugens (Christiianus) his Celestial Worlds discovered. See Celestial.
475 Harris's (John) Treatise of Algebra: with the Geometrical Construction of Equations, &c. The 3d edition. London, 1714.
550 Harris's (John) Elements of plain and spherical Trigonometry; together with the Principles of Spherick Geometry. The whole demonstrated and illustrated with useful Cases and Examples. The 2d edition. London, 1723.

I,J

Folio **Octavo**

Quarto **Duodecimo**

K

Octavo

327, 432, & 670 Keil's (John) Introduction to Natural Philosophy; or, Philosophical Lectures, read in the University of Oxford. To which are added, the demonstrations of Monsieur Huygens's theorems concerning the centrifugal force and circular motion. The 5th edition. London, 1758, and 2d edition, 1730.

Duodecimal

414 Keil's (John) Elements of plain and Spherical Trigonometry – Also a short treatise of the nature and arithmetick of Logarithms. The 3d edition. Dublin, 1726.

L

Octavo

74 & 545 London (The) Magazine; or, Gentleman's Monthly Intelligencer; from the year 1732, inclusive, to the present time. vols.
75 London Magazine. (A general Index to the 27 Volumes of the) viz. from 1732 to 1758, inclusive, London, 1760.

M

Folio

91 Mechanics, etc. (Ferguson's Lectures on) see Ferguson.
169 Mechanicks: (The Principles of) explaining and demonstrating the general laws of motion. The 2d edition. By William Emerson. London, 1758.
167 Mathematicks. (A compleat Course of the) See Ozanam
74 Magazine (The London) See London.
102 Magazine. (The Gentleman's) See Gentleman's, etc.
428 & 516 Martin's (Benjamin) Philosophia Britannica… the 2d edition. 3 vols. London, 1759 and 2 vols. Reading, 1747.
442 Martin's (Benjamin) Description and Use of both Globes, the Armillary Sphere and Orrery, exemplified in a large and select variety of problems in Astron., Geo., dialing, navigation, spherical trig., chronology, etc. Also a new construction of each globe, by an apparatus, exhibiting the phaenomena of the earth and the heavens exactly as they are… London.
508 Martin's philosophical Grammar. See Philosophical.
106 Martin's New and compendious System of Opticks.
383 Martin's (Benjamin) Philosophical Library of literary Arts and Sciences, viz. Theology,
ethics, christianity, Judaism, mahometanisim, gentilism, mehtyology , grammar, and
language, … geography, chronology, …. by Benjamin Martin. London, 1737.
491 Mechanics, (The Principles of) See Emerson.
538 Mathematician's Guide. (The Young) See Ward.
663 Mathematical Learning, (The Usefullness of) ex-

plained and demonstrated: being mathematical lectures read in the publick schools, at the university of Cambridge. By
Isaac BARROW, D.D., London, 1734.

840 Magazine (The general) of Arts and Sciences, for 1755 and 1756. By Benjamin Martin. 2 vols.

174 Mathematical Instruments. (The construction and principal use of). Translated from the French of M. Bion, chief instrument maker to the French king. To which are added the construction and uses of such instruments as are omitted by M. Bion, particularly of those invented or improved by the English. By Edmund Stone. The whole illustrated with copper plates. The second edition. London, 1758.

236 Mathematical Repository. See Dodson.

Quarto

91 Mechanics, etc. (Ferguson's Lectures on) See Ferguson.

169 Mechanicks: (The Principles of) explaining and demonstrating the general laws of motion. The 2d edition. By William Emerson. London, 1758.

176 Malcolm's (Alexander) new system of Arithmetic, theoretical and practical. Wherein the science of numbers is demonstrated in a regular course from its first principles, through all the parts and branches thereof. London, 1730.

Octavo

Duodecimo

N

Folio

Quarto

99 & 100 Newton's Philosophy. (A View of Sir Isaac) By Henry Pemberton. London, 1728. (One of them the gift of Peter Collinson, Esq.; of London.)

118 Newton's philosophical Discoveries. (An Account of Sir Isaac) By Colin Mac Laurin, A.M. and F.R.S. Published for the author's manuscript papers, by Patrick Murdoch, M.A. and F.R.S. London, 1748.

173 Newton's (Sir Isaac) Chronology. See Chronology.

Octavo

225 Newton. (Optiks; by Sir Isaac) See Opticks.

385 & 743 Newton's (An Account of Sir Isaac) philosophical Discoveries, by Colin Maclaurin, A.M. and F.R.S. Published from the author's manuscript papers, by Patrick Murdoch, M.A. and F.R.S. The 2d edition. London, 1750.

632 Newton's (Sir Isaac) mathematical Principles of natural Philosophy. Translated into English by Andrew Motte. To which are added the laws of the moon's motion, according to gravity, By John Machin, F.R.S. 2 vols. 1729.

Duodecimo

O

Folio

Quarto

Octavo

167 Ozanam. (A compleat course of the Mathematics. By Mons.) Translated into English
with improvements and additions. By J.T. Desaguliers, L.D.D. F.R.S. 5 vols. 1770.

225 Optics: or, A treatise of the reflections, refractions, inflections and colours of light. By Sir Isaac Newton. The 4th edition. London, 1730.

769 Ozanam's (Mons.) Recreations, mathematical and physical; laying down and solving many profitable and delightful problems of arithmetick, geomery, opticks, gnomonicks, cosmography, mechanicks, physicks and pyrotecny.----- Translated into English. London, 1708.

P

Folio

Quarto

32 Priestly's (Joseph) History and present State of Electricity, with original Experiments. London, 1767.

114 Philosophy. (Mathematical Elements of natural) See s'Gravesande.

118 Philosophical Discoveries. See Newton.

161 Philosophical (The) Transactions of the Royal Society, the experiments they have tried, improvements they have made, and accounts they have received from foreign parts to the year 1758. Abridged by Lowthorp, Jones, and others, with many cuts. 30 vols.

Octavo

5 Philosophy. (A Course of Lectures in Natural) By the late Richard Helsham, M.D. Professor of physick and natural philosophy in the university of Dublin. Published by Bryan Robinson, M.D. Dublin, 1739.

305 Philosophy. (A compendious System of Natural) See Rowning.

327 Philosophy. (An Introduction to Natural) See Keil.

382 Philosophical Discoveries. See Newton.

428 Philosophia Britannica. See Martin.

632 Philosophy. (The mathematical Principles of natural) See Newton.

795 Pamphlets, viz.

Compendious division, containing a great variety of curious and easy contractions of division. By T. Smith.

879 Philosophical Experiments and Observations. See Hooke's.

Duodecimo

380 Philosopher, (The impartial) or, the philosophy of

common sense. Written in French by the Marquis D'Argens, containing rational dissertations upon the uncertainty of human knowledge. Translated from the last edition. To which is added Mons. Maupertius his dissertation upon gravity, &c. 2 vols. London, 1749.

500 Philosophy (A New Treatise of natural) freed from the intricacies of the schools. London, 1687.

Q

Folio Quarto Octavo Duodecimo

R

Folio

Quarto

21 Royal Society of London, (A Review of the the Works of the) Containing animadversions on such of the papers as deserve particular observation. In eight parts; under the several Heads of Arts, Antiquities, Medicine, Miracles, Zoophytes, Animals, Vegetables and Minerals. By John Hill, M.D. London, 1751.

59 Royal Society of London. (History of the) See Birch's History &c.

192 Royal Society of London, for the improving of Natural Knowledge. (The History of the) By Thomas Sprat. London, 1667.

Octavo

33 Rowe's Doctrine of Fluxions. See Fluxions.

302 Royal Society: (Memoirs of the) or, a new abridgement of the philosophical transactions Giving an account of the undertakings, studies and labours of the learned and ingenious, in many considerable parts of the world; from the first institution of that illustrious society in 1665, to 1740. In the course of this Work, everything is carefully extracted from the originals, according to the order of time; the Latin Englished; the terms of art explained' the theoretical parts applied to the practice: and the whole illustrated with a great number of copper plates. A performance of great use for the knowledge and improvement of mathematicks, natural philosophy, trades, manufactures, arts, &c. By Mr. Baddam. The 2d edition. 10 vols. London, 1745.

305 Rowning's (I.) Compendious System of Natural Philosophy: with notes, containing mathematical demonstrations, and some occasional remarks. 2 vols. London, 1759.

408 Royal (The) Magazine: or, Gentleman's monthly Companion; from the year 1759. ___ vols.

Duodecimo

S

Folio

Quarto

163 Simpson's (Thomas) miscellaneous tracts on some curious and very interesting subjects in mechanics, physical astronomy, and speculative mathematics; wherein the Precession of the equinox, the Nutation of the earth's axis, and the motion of the moon in her orbit, are determined. London, 1757.

Octavo

844 Saunderson's Method of Fluxions. See Fluxions.

Duodecimo

368 Students Memorial-Book, (The young) or, pocket-library: containing

I. The rudiments of logarithms, decimals, and algebra.
II. Theorems and canons, for solving questions and problems of arithmetic, algebra, and fluxions.
III. Rules, theorems and cannons, for solving problems in the mathematical and mechanical arts and sciences.
IV. A large collection of mathematical tables, with a perpetual almanack.
V. An apparatus of common mathematical lines, for the operation of any question, etc. as is performed by the plain scale, etc. By Benjamin Martin. London, 1736.

T

Folio Quarto Octavo

Duodecimo

44 Trigonometry. (The Elements of) See Keil.

U,V

Folio Quarto Octavo Duodecimo

W

Folio

84 Wallis's (John) Treatise of Algebra, both historical and practical: shewing the original, progress and advancement thereof, from time to time; and by what steps it hath attained to the height, at which it now is. With some additional treatises. London, 1685.

154 Works (The) of the learned Isaac Barrow, D.D. (Being all his English works.) Published by Archbishop Tillotson. The 5th edition. 3 volumes bound in 2. London, 167.

Quarto

Octavo

296 Wingate's (Edmund) plain and familiar Method for attaining the Knowledge and Practice of common Arithmetic. Containing all the useful rules, delivered in amore practical and correct manner, than in any work hitherto extant. The 19th edition, with additions and emendations, by James Dodson. London, 1760.

401 Wilkins. (The mathematical and philosophical Works of Bishop John) Containing, I. The discovery of a New world; of adiscourse tending to prove, that it is probable there may be another

habitable world in the moon. II. That it is probable that our earth is one of the planets. III. Mercury: or the secret and swift messenger; shewing how a man may, with privacy and speed, communicate his thoughts to a friend at a distance. IV. Mathematical magick: or the wonders that may be performed by mechanical geometry. V. An abstract of his essay towards a real character and a philosophical language. – To which is prefixed, the author's life and an account of his works. London, 1708.

Ward's (John) Young Mathematician's Guide: being a plain and easy Introduction to the Mathematicks. With an Appendix of practical Gauging. The 11th edition. London, 1762.

547 Wilson's (Henry) Surveying improved: or, The whole art, both in theory and practice fully demonstrated. In four parts, 1. Arithmetic, vulgar and decimal. 2. All definitions, theorems and problems; with plain trigonometry and whatsoever else is useful in the theory of surveying…. Also a new essay on solids. By William Hume. The 4th edition. London, 1755.

717 Winkler's Elements of Natural Philosophy. See Philosophy.

Duodecimo

62 Wolfii (Christiani) Compendium Elementorum Matheseos universae; in usum studioae juventutis adornatum. 2 Tom. Lausanne, 1742.

X,Y,Z

Folio **Quarto** **Octavo** **Duodecimo**

MAA invites you to join the new online community, MAA Connect. This new member benefit is designed for MAA members to connect, communicate, and collaborate with peers. This is a platform to share ideas, ask questions, and network.

You can log in to MAA Connect using your MAA membership username and password. The webpage at https://connect.maa.org/home provides more information on getting started and how to use MAA Connect. Use this information to set up your profile, or use the Getting Started instructions as you familiarize yourself with the platform.

There will be a number of Getting Started webinars to help you navigate your account. Beginning March 9, you can join a webinar every other Monday from 12-12:30 p.m. EST. To make the most of this time, be sure to log in to MAA Connect using your MAA member credentials before the webinar begins. If you have any issues logging in, please contact MAA Customer Service at 800-331-1622 or maaservice@maa.org.

Pictures from JMM 2020

HOM SIGMAA Reception, Business Meeting, and Guest Lecture by Dr. June Barrow-Green, *The historical representation of women in mathematics.*

More Pictures from JMM 2020

MAA Contributed Paper Session on A History of Mathematics in the United States and Canada: A session in Honor of Math Historian David Zitarelli

Organized by Colin McKinney and Amy Shell-Gellasch

Above left to right: Colin McKinney opening the session. Thomas Drucker speaking on David Zitarelli and his contributions. David Zitarelli's son Paul presenting a slideshow about his father.

Below: Presenters in the session.
Left to right: Stephen Kennedy, Thomas Drucker, David Lindsay Roberts, Paul Zitarelli, Lawrence D'Antonio, Della Dumbaugh, Amy Ackerberg-Hastings, Patricia R. Allaire, Cynthia Huffman. (Not pictured: John McCleary.)

The History of Mathematics Special Interest Group of the Mathematical Association of America

is pleased to announce its seventeenth annual

Student Paper Contest in the History of Mathematics

This contest is open to all undergraduate students[π]

Papers will be judged by a panel of specialists for content, originality, and presentation. Typically first and second place winners are chosen.

Submission Guidelines

- Topics can be drawn from any field of mathematics.
- Papers can address a single person or topic, or be an historical survey of a topic or school of thought.
- Submissions should be approximately 5000 words (approximately 12 double-spaced 12 pt. pages) in length with font that is easy to read.
- Submissions should be in a single PDF file, including a title page with title of paper, the author, school, and complete contact information.
- Papers should include a full citation list.
- Papers should not draw too heavily from web sources.[ℵ]
- Students submitting a paper need not be currently taking a history of mathematics course.
- All papers should be single-authored.
- Eligible papers are those written in the past year and while the author was an undergraduate.

Submission Deadline: Tuesday, March 31, 2020

Results will be announced via email
and on the HOM SIGMAA website in May.

Submissions and questions can be directed to
Dr. Amy Shell-Gellasch ashellge@emich.edu

[π] Students who have graduated less than a year ago but wrote their paper while still an undergraduate may also participate. Graduate and high school students may also submit for an honorable mention.

[ℵ] Web sources that give access to print material, such as JSTOR, are completely acceptable.