Greetings from the HOM SIGMAA Chair

Daniel Otero, Xavier University

I write these words on Martin Luther King, Jr. Day in January, 2013, the very day that Barack Obama took the oath of office for the second time (or fourth time, if you're a stickler about these things -- yeah, he did it formally twice in '09 and twice again this year; go ahead, look it up!). How appropriate for me to be greeting the members of HOM SIGMAA in my own inaugural action as Chair of the SIGMAA.

It's been twelve years now that HOM SIGMAA has supported the interests of members of the Association in the history of our discipline, and I marvel at the many wonderful activities that we have managed to sponsor over the years with this organization. Just this year, at the Joint Meetings in San Diego, our SIGMAA sponsored no fewer than four special presentations:

- The Paul R. Halmos photograph collection of the Archives of American Mathematics, presented by a panel led by Carol Mead;
- Cynthia Woodburn's talk on Geometry and Baroque architecture in Turin, Italy;
- Keith Devlin's presentation after the HOM SIGMAA reception on Leonardo Fibonacci, Liber Abbaci, and the rise of the modern commercial world; and
- a panel discussion on Using mathematical archives and special collections for research and teaching.

So, not only are we the Association's largest SIGMAA if you count subscribers, but surely we can vie for the most active as well. This activity is a testament to the hard work of our SIGMAA officers, and I'd like to take this opportunity to thank especially Amy Shell-Gellasch, our Program Chair, whose indefatigable energy has been instrumental in maintaining the high quality of the events our SIGMAA has been supporting. Indeed, I think Amy has generously offered her services to this SIGMAA in some manner or form since its charter was crafted twelve years ago. Another charter member, Rob Bradley, now our Past Chair, has been heavily involved in running the SIGMAA, and we owe him a large debt of gratitude for his leadership these last three years. I'm happy to have him beside me as I slide into this position now.

In addition to the four events I listed above, I'd also like to draw attention to another paper that was read at the meetings in San Diego which spoke to the history of our SIGMAA and its vibrant activities in the present day: in the session of papers On Writing the History of the MAA, Fred Rickey presented a paper with...
Greetings from the HOM SIGMAA Chair (continued from page 1)

Victor Katz that described *The History and Impact of IHMT, the Institute in the History of Mathematics and its Use in Teaching*. The Institute (as many of us refer to it who were lucky enough to be its participants for several summers in the latter part of the 1990s) touched the careers of dozens of mathematicians and teachers of mathematics across the country, few of whom had formal training in the history of mathematics (this writer included). Fred, Victor, and the other experts they brought in to the Institute, at American University in Washington, D.C., in the early years, and later, at Catholic University, assisted the attendees to see how to profitably use the history of mathematics to teach the subject to high school and college students alike. More importantly, it created a community of "practitioners" and lovers of the history of mathematics that has enriched the profession, and persists more than a decade later. Indeed, many of the former participants of the Institute are active HOM SIGMAA members today, and have heightened the general popularity of the history of mathematics (and its use in teaching) within the mathematics community for many years.

I would be remiss if I did not mention that HOM SIGMAA is joining its sister organization of philosophers, POM SIGMAA, to welcome the Canadian Society for the History and Philosophy of Mathematics (CSHPM) to the upcoming MathFest (Hartford, CT, Aug 1-3, 2013). Our Canadian friends are holding their annual summer meeting alongside the MAA. This will give many of us an opportunity to hear engaging talks of high quality on the history and philosophy of mathematics, and especially to hear their keynote speaker, Jeremy Gray, Oxford mathematician, prolific scholar and author of many books, including more recently *Plato's Ghost: a Modernist Transformation of Mathematics* and *Henri Poincaré: a Scientific Biography* (both with Princeton Press). It promises to be a very enjoyable gathering.

MathFest

*Thomas Drucker*, University of Wisconsin-Whitewater, *POM SIGMAA Chair*

(This article was prepared for the CSHPM Newsletter and will appear there as well.)

MathFest is the annual summer meeting of the MAA. Ordinarily, there is little on the POM SIGMAA agenda other than an invited speaker. This summer's meeting in Hartford, Connecticut, will be distinctly more ambitious. We hope that you will consider spending August 1st through 3rd at the meeting and getting a hearty dose of philosophy of mathematics.

In addition to the MAA, the Canadian Society for the History and Philosophy of Mathematics will be holding

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 Amy Shell-Gellasch at shell-gellasch@hood.edu. Also, please contact her 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. All suggestions are welcome!

Jeremy Gray (right)

Copyright: Susan J. Laurence
its annual meeting at MathFest. That will offer the chance to hear a number of speakers who are ordinarily giving their talks in Canada, although the society has also met a few times in the British Isles. A further attraction is that it will also be the unofficial meeting of the Euler Society.

The invited speaker is Jeremy Gray, known for his many contributions in both history and philosophy of mathematics. His most recent volume is on Poincare, but his previous book (*Plato’s Ghost*) discussed the range of modernism in mathematics. He has also written extensively on the history and philosophy of geometry.

The contributed paper sessions are divided into two parts. One set of papers will be devoted specifically to the interactions between history and philosophy of mathematics. The organizers for that session are Glen van Brummelen of Quest University in British Columbia (gvb@questu.ca) and Thomas Drucker of University of Wisconsin—Whitewater (druckert@uww.edu). The other set will include papers either on history or philosophy of mathematics. The organizers for that session are Robert Bradley of Adelphi University in Garden City (bradley@adelphi.edu), Bonnie Gold of Monmouth University in New Jersey (bgold@monmouth.edu), and Maria Zack of Point Loma Nazarene University in San Diego (MariaZack@pointloma.edu). One feature of the latter session is to try to organize the papers thematically rather than as history versus philosophy. For example, we might have papers on Euler in one or more sub-sessions, tackling both historical and philosophical issues. The goal is to encourage historians to hear philosophy and philosophers to hear history, out of the recognition that there is danger of either field’s ignoring the other.

The calls for papers for the sessions should go out from the MAA shortly, although those wishing to submit something can write directly to Glen (for the special session) or Rob (for the general session) at this point. Our hope is that that this meeting will offer the richest crop of presentations on the philosophy of mathematics of any MAA meeting in memory. Please think about speaking, but even if you would just like to listen, there will be plenty about which to think. The organizers are from all over North America, and the subjects for the talks will range even more widely. More details about the meeting will be available on the POM SIGMAA website as the date approaches.

**Schedule of History Events at MathFest 2013**

History and Philosophy of Mathematics Contributed Paper Session (Thursday, Friday, Saturday)
Organizers: Rob Bradley, Bonnie Gold and Maria Zack

Interactions Between History and Philosophy of Mathematics Contributed Paper Session (Saturday morning)
Organizer: Thomas Drucker and Glen van Brummelen

General Contributed Papers Session on the History or Philosophy of Mathematics (Thursday, Friday, Saturday)

Interested in submitting an abstract to one of the contributed paper sessions at MathFest 2013? The deadline for abstract submissions is April 30.

HOM SIGMAA congratulates **Dan Curtin** (right), Northern Kentucky University, who received a Certificate of Meritorious Service at the JMM 2013 Prize Session.
2013 Meeting and Conference Calendar

Philadelphia Area Seminar on the History of Mathematics (PASHoM)
September 2012 – April 2013, Villanova, Pennsylvania

PASHoM is a set of mathematicians, historians, and others interested in history of mathematics who meet monthly to share their common interest. The meetings are at Villanova University and begin at 6 p.m. with a light supper and casual conversation about mathematics, history, current events, personal stories, etc. This is followed by a lecture and discussion.

Updates will be posted at http://www1.villanova.edu/villanova/artsci/mathematics/pashom/schedule.html.

To add your name to an email list for notices, send a request to alan.gluchoff@villanova.edu.

(After 12 years, David Zitarelli and Thomas Bartlow turned over the reigns of PASHoM last fall to Alan Gluchoff.)

ARITHMOS Reading Group
Danbury, Connecticut

Readings in the History of Mathematics from Original Sources seminars are 24-hour workshops on the classics of mathematics, read in the original or in an English translation. A dozen pages of mathematics is typically covered per session, which usually runs from 2 – 6 p.m. on the first day, and 9 a.m. to 12:30 p.m. on the second. Organized by Rob Bradley and Chuck Rocca, ARITHMOS meets three to five times per year at Western Connecticut State University. The current topic of discussion is the third book of Descartes’ Geometrie. For more information, visit http://www.arithmos.org/.

Fall Eastern Sectional Meeting of the AMS
October 12-13, 2013, Temple University, Philadelphia, Pennsylvania

This AMS sectional meeting will include a special session on the History of Mathematics in America, organized by Thomas Bartlow, Paul Wolfson, and David Zitarelli. For more information, visit http://www.ams.org/meetings/sectional/2209_program.html.

HOM SIGMAA congratulates David Zitarelli (right) on his recent retirement to Minneapolis. David served as Chair of HOM SIGMAA from 2003-2004.

“Although I seem to have been born a mathematician, I was always captivated by the history of mathematics, so I read lots of it. But I did not get the opportunity to understand its structure until teaching the course at my second year at Temple, 1971. Two years later, the esteemed historian/mathematician Ken May encouraged me (with funding!) to attend a conference on the history of American mathematics. And would you believe that I shared dinner with Dirk Struik, Marshall Stone, and Garrett Birkhoff? Now, who does not fit in that quartet? Anyway, I was hooked on history…” (Read more of David’s autobiography at https://math.temple.edu/~zit/bio.pdf.)

History of Science Society Meeting
November 21-24, 2013, Boston, Massachusetts

This meeting of the History of Science Society will mark the centennial of the history of science journal, Isis.

David Zitarelli, Chair of HOM SIGMAA from 2003-2004.

Photo credit: Joseph V. Labolito, Temple University.
As you may know from Amy Shell-Gellasch’s announcement in April on the History of Mathematics listserv, HOM SIGMAA awarded a grant to the Archives of American Mathematics (AAM), for which I am the archivist, at the Dolph Briscoe Center for American History (the Center) at the University of Texas at Austin, to digitalize the Max Beberman Film Collection.

The University of Illinois Committee on School Mathematics produced this collection of 47 reels of 16mm film in the 1960s, an era of reform in mathematics education, with funding from the National Science Foundation. The films feature a series entitled, “Teaching High School Mathematics,” in which Dr. Max Beberman leads secondary school pupils in a 166-lesson course, the first of which is “Numbers or Numerals?”

In 1999, Mrs. Elizabeth Beberman, Dr. Beberman’s widow, donated the films to the Center after the University of Illinois declined to keep them. Unfortunately, they have been unavailable to researchers until now because we lack the appropriate viewing equipment. With a grant to the Center from another organization in 2010, however, our digitalization department acquired a machine to digitalize 16mm film, and software that creates a table of contents for each film in order for a viewer to jump instantly to any part of it.

As the archivist for the AAM, I thank the HOM SIGMAA for its generous contribution to the AAM. Without your invaluable support, this project would not be possible. I hope that you will visit our digital collections page (http://www.cah.utexas.edu/collections/math_digital_collections.php) and watch the films as we make them available. (Please note they may load slowly.) Please email me with any questions or comments about them or any of our other collections at carol-mead@austin.utexas.edu.

HOM SIGMAA FUNDS NEW PROJECT

HOM SIGMAA is pleased to announce that it will be funding another project at the American Archives of Mathematics. The Paul Erdős Correspondence Collection consisting of 20 years of correspondence between Erdős and Carl Pomerance, will be digitalized. Pomerance donated the collection of approximately 435 letters spanning from 1974 to 1995, the year before Erdős’ death, in 2012. Details in Erdős’ letters include where he is staying, who he is staying with, why he is there, as well as a discussion of mathematical problems. Stay tuned for more information on this project!

See page 10 for photographs of digitization technicians working on the collection.
MAA Convergence Asks, “Who’s That Mathematician?”

Janet Beery, University of Redlands

Editor, MAA Loci: Convergence

The MAA’s online math history magazine, Convergence, invites you to take an alphabetical photo tour of prominent 20th century mathematicians (and their mathematics) by playing “Who’s That Mathematician?” To see over 50 pages of photos of mathematicians taken by well-known mathematical researcher, expositor, and educator Paul R. Halmos (1916-2006) from the 1950s through the 1980s, visit the Convergence homepage http://mathdl.maa.org/mathDL/46/ and click on the link to “Who’s That Mathematician?”

How many can you identify without looking at the captions beneath the photos?

Halmos enjoyed snapping photographs of mathematicians he met around the world and at his various home campuses in the U.S., resulting in a collection of hundreds of photographs. In 2011, 342 of Halmos’ photos were digitalized by the Archives of American Mathematics, University of Texas, Austin, under the direction of Archivist Carol Mead with a grant from HOM SIGMAA. MAA Convergence began posting six photos per week early in 2012 and will continue to do so through early March 2013.

We invite you to view the photos and to share what you know about them by using “Discuss this article” at the top or bottom of each webpage, or by contacting Janet Beery <janet_beery@redlands.edu> or Carol Mead <carolmead@austin.utexas.edu> directly. Please provide or correct names, dates, locations, and events (e.g., conference, invited speaker, social visit, etc.). Please also share any other pertinent information, fond memories, mathematical stories, etc. connected to the photographs.

Ubiratan “Ubi” D’Ambrosio (below) was photographed by Halmos at the Seventh Brazilian Mathematics Colloquium in Poços de Caldas, Brazil, in July of 1969. One of the founders and leaders of the cultural and mathematical area of study known as ethnomathematics, D’Ambrosio earned his Ph.D. in functional analysis at the University of São Paulo, Brazil, in 1963, and now is professor emeritus of mathematics at the State University of Campinas (UNICAMP) in São Paulo. (Photo source: Archives of American Mathematics, UT Austin*)

Sources:
Halmos: MAA biography, MacTutor History of Mathematics Archive
vander Waerden: MacTutor History of Mathematics Archive
Hildebrandt: University of Michigan Memorial, AMS Presidents
D’Ambrosio: Nexus Network Journal biography, Mathematics Genealogy Project
Paul R. Halmos (1916-2006) was a mathematical researcher, expositor, educator, and “great friend of the MAA.” Besides doing important research in operator theory and functional analysis, he wrote books, such as *Finite-Dimensional Vector Spaces* (1942) and *Naïve Set Theory* (1960), that organized and made accessible fundamental areas of mathematics. He also wrote autobiographical works, such as *I Want To Be a Mathematician: An Automathography* (Springer, 1985) and *I Have a Photographic Memory* (AMS, 1987) that helped document and define the 20th-century (western) mathematical community.

Phillip S. Jones (see below) earned his Ph.D. in 1948 from the University of Michigan with a dissertation on the history of mathematics of linear perspective written under another famous mathematics historian, Louis C. Karpinski (1878-1956). Jones joined the mathematics faculty at Michigan in 1947 and remained there for the rest of his career, specializing in mathematics history and education. He was a national leader in both of his specialties and was perhaps best known for combining the two: using mathematics history as a mathematics teaching tool and writing the history of mathematics education in the U.S.

Halmos photographed (from left to right below) Phillip S. Jones (1912-2002), Bartel van der Waerden (1903-1996), and T. H. Hildebrandt (1888-1980) on April 2, 1968, in Ann Arbor, Michigan. Jones and van der Waerden are well known as historians of mathematics. (Photo source: Archives of American Mathematics, UT Austin*)

Bartel van der Waerden earned his Ph.D. in algebraic geometry in 1926 from the University of Amsterdam after studying also at Göttingen with Emmy Noether. After further study with Emil Artin in Hamburg, van der Waerden began writing his most famous book, *Moderne Algebra*, basing Volume I (1930) on work of Noether and Artin and Volume II (1931) on his own work. He was professor of mathematics at Leipzig from 1931 through the end of World War II in 1945 and at Zürich from 1951 onward. Although he was interested in history throughout his career, he published most of his historical work later in his career. His best known historical works are his books *Science Awakening* (1954) and *Geometry and Algebra in Ancient Civilizations* (1983).

Theophil H. Hildebrandt earned his Ph.D. in 1910 from the University of Chicago under advisor E. H. Moore. He joined the mathematics faculty at the University of Michigan in 1909 and spent his career there, specializing in functional analysis and integration theory. Hildebrant is best known for giving the first general proof of the principle of uniform boundedness for Banach spaces in 1923 and for serving as president of the American Mathematical Society during 1945-1946 and as chair of his department from 1934 to 1957.

The Congress of the European Society for Research in Mathematics Education (CERME) was recently held in Antalya, Turkey (February 6-10). Those who attended should be sure to look at Deposit # 107 in the National Curve Bank.

All mathematically inclined tourists are certain to enjoy the web journey: <http://curvebank.calstatela.edu/istanbul/istanbul.htm>.

If one should be so romantically inclined as to arrive in Istanbul on the Orient Express, the Victorian train station is still in operation. Moreover, this is the same station where the great Danish scholar and historian of mathematics, Johan Ludvig Heiberg, arrived in 1906 to track down a “lost” palimpsest of Archimedes rumored to be in the Metochion of the Greek Orthodox church. The Carlsberg Foundation had awarded Heiberg a grant of 300 kroner for the trip where he meticulously photographed and translated a “damaged and readable but very hard to decipher” Byzantine Greek work on vellum.

This is the very same palimpsest that was auctioned at Christie’s in 1998 and is now in the Walter’s Art Museum in Baltimore. (Heiberg’s photographs are in Copenhagen’s Royal Library.) Many HOM SIGMAA activities have focused on this same palimpsest.

Mathematics tourists beware! The Patriarchate Church of St. George in Fener was closed for renovation in 2011. However, services were being held in the very Metochion where Heiberg worked with poor light and no air conditioning. But note: The church and attached Metochion are extremely difficult to find if one does not speak Turkish. Even then, the existence of a Greek community in Istanbul is not widely known.

**Renie Award**

The Renie Award for best NCB deposit of the year went to Francisco Treceño’s wooden models of the conic sections. Treceño says his models have become a popular gift item for mathematicians. <http://curvebank.calstatela.edu/artmadera/artmadera.htm>.

Currently we are polishing an animation of Bhaskara’s proof leading to the trig identity

\[
\sin^2(\theta) + \cos^2(\theta) = 1.
\]

We have a new fractal animation, a deposit on Hamiltonian circuits, and a page on Feynman diagrams.

See the following:

<http://curvebank.calstatela.edu/fractal2012/fractal2012.htm>,

<http://curvebank.calstatela.edu/unit2012/unit2012.htm>, and


The National Curve Bank is an international database for all kinds of curves. Intended as a resource for both students and teachers, it strives to provide features—for example, animation and interaction—that a printed page cannot offer. If you have a favorite curve and would like to make a deposit, visit the National Curve Bank at curvebank.calstatela.edu or email Shirley Gray at sgray@calstatela.edu.

**JOIN the HISTORY of MATHEMATICS SIGMAA!**

The annual HOM SIGMAA membership fee for MAA members is $12. The MAA membership form has a check-off box for HOM SIGMAA, and we ask you to check this box when you pay your annual MAA membership fees. If you have already joined or renewed for 2013, please contact the MAA at (800) 331-1622 and ask to join HOM SIGMAA.

Visit homsigmaa.org today!
Cajori Two Project Collects Data on History of U.S. Collegiate Mathematics Education

Walter Meyer, Adelphi University

The Cajori Two Project aims to provide a conveniently accessible database showing how mathematics curricula have changed over the 20th century at twenty different campuses. Part of the project involves reading catalogs and creating highly abbreviated descriptions of courses, according to a coding scheme we devised. Each abbreviated course description needs to be entered into its proper location in an Excel workbook. This requires mathematical judgment, some historical knowledge, and—easy to overlook, but very important—clerical and computer skills. Thousands of courses are involved and there is a likelihood of some error. We have been studying the matter of error with a view toward reducing it.

Sampling of our work so far suggests that the error rate is small but the 95% confidence interval for the error is wide unless one does a nearly 100% sample. A 100% sample is a redo of the entire coding task and out of the question. Instead we have turned our attention to determining the most likely forms of error with a view toward doing “strategic checking” when all the workbooks are done.

Also occupying our attention recently has been the development of a website to provide a portal to the data and the various analyses of it that we have written software to enable. In a few months we should have a site which we can beta-test with users who have no knowledge of the Cajori Two Project.

We gratefully acknowledge HOM SIGMAA’s financial support for photocopying.

For more information, please contact Walter Meyer at meyer1@adelphi.edu.

Visit the HOM SIGMAA website today!!

The HOM SIGMAA website (http://homsigmaa.org) includes HOM SIGMAA news, announcements of upcoming conferences, links to other history of mathematics pages, and other resources. Please check the HOM SIGMAA website for news throughout the year. Suggested additions to the website (for example, conference information, links, or photos) are always welcome at sbg@acm.com.

To subscribe to the HOM SIGMAA list, send an email to sbg@acm.com with the subject line: subscribe HOMSIGMAA-list ADDRESS, with your own e-mail address in place of the word ADDRESS. See http://homsigmaa.org/list for instructions for subscribing to the list in digest form or for unsubscribing from the list.

Please contact Scott Guthery at sbg@acm.com if you have any problems subscribing, or with any other questions or comments on HOM SIGMAA electronic resources.

Congratulations to our new Chair, Daniel Otero, and to Scott Guthery, our new Electronic Resources Coordinator. Thank you to Rob Bradley and Andrew Perry, who previously served in these respective roles.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 2013</td>
<td>Hartford, CT</td>
<td>August 1-3</td>
</tr>
<tr>
<td>Winter 2014</td>
<td>Baltimore, MD</td>
<td>January 15-18</td>
</tr>
<tr>
<td>Summer 2014</td>
<td>Portland, OR</td>
<td>August 7-9</td>
</tr>
<tr>
<td>Winter 2015</td>
<td>San Antonio, TX</td>
<td>January 10-13</td>
</tr>
<tr>
<td>Summer 2015</td>
<td>Washington, D.C.</td>
<td>August 5-8</td>
</tr>
<tr>
<td>Winter 2016</td>
<td>Seattle, WA</td>
<td>January 6-9</td>
</tr>
<tr>
<td>Winter 2017</td>
<td>Atlanta, GA</td>
<td>January 4-7</td>
</tr>
<tr>
<td>Winter 2018</td>
<td>San Diego, CA</td>
<td>January 10-13</td>
</tr>
<tr>
<td>Winter 2019</td>
<td>Baltimore, MD</td>
<td>January 16-19</td>
</tr>
</tbody>
</table>

Save these dates for future MAA meetings!

This project is named for Florian Cajori, an early president of MAA, who was the first to extensively record American college curricular history for centuries before the 20th.
Émile Du Châtelet Manuscript Auction

Du Châtelet manuscripts discovered in 2010 were auctioned in Paris last October. According to a posting by Andrew Brown, Président, Fonds de dotation Voltaire, her scientific notebooks “fetched high prices,” so high that the Bibliothèque nationale de France was unable to intervene.

The unpublished and previously unknown manuscripts on Newton’s optics sold for 230,000, while the successive versions of the “Exposition abrégée” brought 800,000.

The manuscript of Voltaire’s “Éléments de la philosophie de Newton” sold for 350,000.

For more information, see http://www.diasporicarchives.com/emilie-du-chatelet-manuscripts-auction-in-paris/.

(Thanks to HOM SIGMAA member Fred Ricky for bringing this posting to the attention of HOM SIGMAA members.)