POMSIGMAA Newsletter

Spring-Summer 2013

Greetings from the Executive Board of POMSIGMAA, the Special Interest Group of the Mathematical Association of America for the Philosophy of Mathematics. If you have items to include in the newsletter – interesting events coming up in the philosophy of mathematics, for instance – please contact the Public Information Officer, Bonnie Gold, bgold@monmouth.edu.

Results of POMSIGMAA fall election

By request of the MAA, POMSIGMAA moved its elections to the fall. In our fall election in 2012, Mike Scudder, of MicroTools, Inc., was re-elected Secretary for a five-year term, ending January 2018.

POMSIGMAA at JMM 13

At the Joint Mathematics Meetings in January in San Diego, we had an excellent invited talk by Mark Balaguer on "A Guide for the Perplexed: What Mathematicians Need to Know to Understand Philosophers of Mathematics." We hope to have it up online soon. We also had a good contributed paper session, "Philosophy, Mathematics, and Progress," organized by Tom Drucker and Dan Sloughter.

Upcoming POMSIGMAA activities

Joint meeting with the Canadian Society for the History and Philosophy of Mathematics at MathFest 2013 in Hartford, CT July 31 – August 3

MathFest is the annual summer meeting of the MAA. Ordinarily, there is little on the POMSIGMAA 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 - 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 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 Poincaré, 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.

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.

The CSHPM Kenneth O. May lecture on Saturday, August 3, from 1 to 1:50 p.m. will be given by Jeremy Gray, of the Open University in England, on "Henri Poincaré: mathematician, physicist, philosopher".

Abstract: Henri Poincaré held strong views about human knowledge that animated his work in both mathematics and physics. He held views on the possibly non-Euclidean nature of space, on the foundations of mathematics, on the fundamental 'laws' of physics, on why the basic equations of mathematical physics are linear, on space and time, and on theory change in science. These views, and the debates they generated, give a rich insight into the frontiers of research a century ago.

About Jeremy Gray: Jeremy Gray's first degree is in mathematics from Oxford, and his PhD is from the University of Warwick. In1983—84 he was a Visiting Assistant Professor of Mathematics at Brandeis University, Waltham, Mass, USA, and from September to December 1996 a Resident Fellow at the Dibner Institute for the History of Science and Technology, MIT, Cambridge, USA. In 1998 he gave a 45-minute Invited Lecture at the International Congress of Mathematicians in Berlin on 'The Riemann-Roch Theorem, 1854--1914'. He is currently a Professor of the History of Mathematics at the Open University, and an Honorary Professor at the University of Warwick, where he lectures on the history of mathematics. In 2009 he was awarded the Albert Leon

Whiteman Memorial Prize of the American Mathematical Society for his work on the history of mathematics. His book Plato's Ghost: The Modernist Transformation of Mathematics, was published by Princeton University Press in 2008, and his scientific biography of Henri Poincaré was published by them in November 2012.

Activities at future meetings

January 15 – 18, 2014 joint AMS/MAA meetings in Baltimore, MD

Guest lecture to be announced. We will also have a Contributed Paper Session, "Is Mathematics the Language of Science," organized by Carl Behrens and Thomas Drucker.

See the Activities and Upcoming Events page at sigmaa.maa.org/pom/PomSigmaa/POMactivities.html for updates.

Other events of interest to the Philosophy of Mathematics Community

The 24th International Congress for the History of Science, Technology and Medicine will be held at the University of Manchester. Symposia at the congress will include:

- Mathematics and machines: explorations of machine-assisted mathematics since 1800
- Les sciences mathématiques 1750-1850: continuityés et ruptures
- Mathematical knowledge at work in Ancient China
- The history and philosophy of mathematical optimization

Other news of interest to the Philosophy of Mathematics Community

From Gizem Karaali, Pomona College: The January 2013 issue (Volume 3 Issue 1) of the Journal of Humanistic Mathematics is currently available online at http://scholarship.claremont.edu/jhm. In this issue, Emily Grosholz offers philosophical considerations in the teaching of complex numbers, Frank Luke Wolcott argues for more contemplation in our teaching and research, and several mathematical poets share the methods and products of their craft. This is once again an issue packed with a diverse selection of mathematical writing. Enjoy!

From Satish Bhatnagar, University of Nevada, Las Vegas: Some of you have been known by face and/or work for over 25 years, so it may really surprise you at the burst of my scholarly output. I have recently published four books, with a fifth to come out in March; all the books published by Trafford are available at Amazon et al. ***Scattered Matherticles, Mathematical Reflections*** is mathematical in nature – but, no hard-core math is included. ***Epsilons and Deltas of Life: Everyday Stories*** has philosophical ***Reflections*** – free from philosophical jargon. The other two are historical and religious. Unabashedly, I state that my books are unique in ideas, formats, layouts, and even the covers – all are products of my imagination. On being repeatedly queried, how do I do it? Here is an answer that eventually surfaced up. Mathematics is a formidable discipline; a powerful tool, as real as a universal wrench in a garage. Furthermore, it is a language - not just of the sciences since the times of Galileo, but now of all disciplines!

The 'nuclear power' of mathematics lies in its deductive reasoning - the essence of mathematical thinking. However, the power of deductive thinking in diverse areas can only be unleashed by the unshackled minds of the mathematicians. It is difficult for a traditional mathematician to de-condition the mind and then divert its energy in other disciplines. To the best of my knowledge, Bertrand Russell (1872-1970) is the only mathematician, who did it under the most bizarre circumstances. Subsequently, he made new histories in many non-mathematical domains – including the 1950 - Nobel Prize in literature and much more in politics and sociology. However, the converse of the above 'theorem' is not true!

Communications

Please be sure that the e-mail address the MAA has for you is current. We send out a newsletter once a year, but beyond that all communication is electronic. To receive communication about upcoming events and elections, but not be on the list serve, contact the Public Information Officer (Bonnie Gold, bgold@monmouth.edu).

Finding POMSIGMAA's Web Page

As of 2011, POMSIGMAA's web page moved to the MAA's site. This should simplify the transitions, as one Public Information Officer replaces another, as well as ensure a dependable home for it. The page is now **sigmaa.maa.org/pom** and can also be accessed from the MAA's homepage by clicking on SIGMAAs.

Upcoming elections for POMSIGMAA

As you see from the list of current officers, below, there will be elections this coming fall for Chair-elect and Program Director. If you are interested in either of these posts, or have someone else in mind who would do a good job and is a POMSIGMAA member, feel free to e-mail the secretary now with the name and e-mail address of the nominee. Or watch for the call for nominations in very early September.

Current Officers of POMSIGMAA:

Chair (through 1-15, then 1 year as past-chair) Daniel Sloughter, Furman University, dan.sloughter@furman.edu
Past Chair (through 1-14) Carl Behrens, Alexandria, VA, CBEHRENS@crs.loc.gov
Program Director (through 1-14) Thomas Drucker, University of Wisconsin-Whitewater, druckert@uww.edu
Secretary (through 1-18) Mike Scudder, MicroTools, Inc., Simsbury, CT, scudder_mike@yahoo.com
Treasurer (through 1-17) James Henderson, University of Pittsburgh at Titusville, HENDERSO@pitt.edu
Public Information Officer (through 1-16) Bonnie Gold, Monmouth University, bgold@monmouth.edu