

Joint Policy Board for Mathematics Meeting

October 29, 2012—Teleconference

Minutes

In attendance (by phone, thanks to Hurricane Sandy): Don McClure, Bob Daverman, Carla Savage, Sam Rankin, Irena Fonseca, Nick Trefethen, Paul Zorn, Jim Crowley, Steve Pierson, Barbara Faires, Eric Friedlander, Michael Pearson, Ron Wasserstein, Reinhard Laubenbacher (SIAM science policy representative).

Math Awareness Month 2013: Don McClure provided draft of poster for 2013. The theme is Mathematics of Sustainability. The committee leading development of the theme is Victor Donnay, Thomas Pfaff, Mary Lou Zeeman, Christiane Rousseau. Mike Breen, AMS public affairs office, is leading AMS support for the committee.

Discussion of the poster followed. Members found images attractive, but there was general agreement that equations are a bit opaque, and the “sustainability challenge” language perhaps too pedantic. Nick Trefethen suggested some alternate language for the poster.

Images like these remind us of some of the great challenges facing our world. What's easily overlooked is that in all these areas, mathematics is key to our understanding.

MAM 2014: Paul floated some suggestions he's gotten through various MAA channels. The sense emerged that something connected to the 2014 centennial of Martin Gardner's birth could be compelling; some desire was expressed to tie MAM themes and activities to research topics. Other topics (e.g., math and movies, math and crime, math and music) had also been suggested, but the Gardner topic seemed most attractive. More details and a “finalist idea” will be presented at the April 2013 JPBM meeting.

Follow-up to PCAST report: Michael reported that MAA is continuing to monitor Dept. of Ed/NSF interagency task force on K-16 math education, which is likely to focus on grades 10-14. Irene Fonseca and Jim Crowley said that NSF and SIAM are discussing a potential workshop on training undergraduates for non-academic STEM jobs, with special focus on retention of already-enrolled students.

Eric mentioned a project of the Carnegie Foundation, on articulation, and another by the AAU on improving STEM education. David Bressoud is on this project's advisory board. Michael mentioned a recent grant (about \$5M) from the Helmsley to fund pilot projects at AAU institutions. Eric suggested that societies encourage more involvement from mathematical scientists in the AAU project, which may focus significantly on the first two years in general and on mathematics in particular.

Sam Rankin mentioned an AMS workshop, scheduled prior to JMM, to help mathematicians be more competitive when applying for NSF grants. The workshop was initiated partly by Joan

Ferrini-Mundy, at EHR.

Open Access: There was extended discussion on this subject. Following are some highlights.

- Don provided a *Notices* article by Rob Kirby as background. The over-arching theme is a push by federal agencies (here and abroad) to make all publicly-funded research open-access. The “Gold” model of publishing refers to page charges (to authors or their grants) as requirements for publication. Cambridge University Press has announced two new journals will implement gold open access. Under such a model in the US, NSF would likely change policy to allow page costs.
- There is some chance that journals in particle physics (and some journals of AIP) will become open access in 2014. Some steps are still not complete; these include contributions, which may not be forthcoming, from “Scope 3” consortium members.
- AMS is worried about these models; AMS policy will not limit publishing opportunities based on financial status of authors. Don noted an important distinction between math and particle physics researchers: All of the latter are funded while many or most mathematicians are not.
- MAA has never used page charges, and allows authors to distribute their own articles freely.
- Don opined that subscription journals are not going away—authors without federal support or ability to pay page charges will still need outlets for publication. All anticipated changes in federal law must accommodate this reality.
- Ron reported that ASA will hold a discussion on e-publication at its upcoming board meeting.
- Strong differences of opinion exist in the community as to the wisdom and practicality of open access in mathematics. But there is general agreement that all societies need to monitor what compliance with evolving laws may mean.

Science Policy: Societies’ representatives gave reports. Some highlights:

- With upcoming election occupying attention, the sequester/fiscal cliff scenarios may be avoided in favor of “down payment” on deficit. But cuts, if made, will likely come from non-defense discretionary spending – including funding for R&D and education.
- Sam reported that the House voted a \$300M increase for NSF, which hasn’t taken many cuts yet. If cuts or sequestration come, NSF may be hit.

- Sam mentioned possible travel-funding restrictions on federal agencies for employees, as well as on funding conferences, review panels, and even directorate advisory committees. These might affect NSF; the NAS has sent a letter of concern.
- There was discussion of the recent troubling L'Aquila earthquake-non-warning convictions in Italy. Several societies, including the NAS, the ASA and the Royal Statistical Society, the Geological Society of America, and the American Geophysical Union, have all sent letters of concern in this regard. Here are some links:

<http://amstat.org/policy/pdfs/ItalyLAquilaLetter.pdf>
<http://www.geosociety.org/news/pr/12-76.htm> http://www.agu.org/news/press/pr_archives/2012/2012-46.shtml

Eric raised the possibility of JPBM issuing its own joint letter or statement, but no conclusion was reached.

2013 Communications Award & future plans: The award committee (Paul (chair), Don, Irene, Ron) recommended that we recognize John Allen Paulos; this was unanimously approved.

Some general discussion followed, but we agreed that the award serves an important purpose, and should be continued. This time, at least as an experiment, we agreed to forego the usual luncheon in favor of more highlighting of the work itself, including at the AMS and MAA book exhibits. MAA agreed to take the lead in this effort, preparing a poster and perhaps some book displays of Paulos's work. It was also planned that the winner will be invited to a prize banquet with one of the societies; secretaries will coordinate.

Charge to the Joint Committee on Women. There was discussion on the appropriate role of JCW and how the draft charge does reflect this role, and what changes are necessary to better-represent the role of JCW.

Bob noted that the Committee has requested two reps from each society, with staggered terms, to promote continuity. The committee also requested an annual face-to-face meeting, as in the past. This was approved for three years, to see how JCW functions under its new charge.

Brief reports from JPBM member societies. At 3:30 pm it was decided by consensus that the marathon phone call had reached the end of its useful life; this portion of the meeting was cancelled.

Respectfully submitted,
 Michael Pearson