

# Joint Policy Board for Mathematics Meeting

April 25, 2011  
Washington, DC

## Minutes

**Members Present:** Jim Crowley (Exec Dir, SIAM), Bob Daverman (Secretary, AMS), Barbara Faires (Secretary, MAA), Eric Friedlander (President, AMS), Nancy Geller (President, ASA), Reinhard Laubenbacher (VP for Science Policy, SIAM), Don McClure (Exec Dir, AMS), Stephen Pierson (Dir of Science Policy, ASA), Tina Straley (Exec Dir, MAA), Lloyd Trefethen (President, SIAM), Ron Wasserstein (Exec Dir, ASA), Paul Zorn (President, MAA) .

**Other Attendees:** Anita Benjamin (AMS), Philip Bogden (NSF-OD/OCI), Jeff Nesbit (NSF-OLPA), Sastry Pantula (NSF-MPS/DMS), Michael Pearson (MAA), Miriam Quintal (SIAM), Sam Rankin (AMS), Ed Seidel (NSF-MPS), Carl Weiman (OSTP), Dave Zook (MAA).

The American Mathematical Society hosted this spring meeting of the JPBM. Don McClure, Executive Director of the AMS, began the meeting with introductions and then presented speakers.

### ***Report on MSRI Workshop on the Future of Mathematics Journals***

This MSRI Workshop was held in mid-February 2011 with broad participation from stakeholder groups. The publishing of mathematical research articles is critically important to the discipline and the goal of the workshop was to discuss how to ensure that changing publishing practices continue to support peer reviewed research. A copy of the final report was distributed with today's meeting agenda.

Don McClure provided information on the scope and scale of mathematics publishing. Charts of the number of journal articles and type of journals showed growth in the last decade with a lot of cross-disciplinary publishing. The U.S. puts out the largest number of journals and the proportion of articles from commercial publishers has risen over the last decade. He also talked about federal support patterns and the geographic distribution of authors.

The workshop revealed support for open access on some level, but concern for the level of service that would be provided. There was no solid conclusion as to what direction in which to go to produce an open access model or what might work to sustain the kind of publishing model we have today. There was also widespread concern about any pay-to-publish scenarios.

### ***America Competes, OSTP Planning for Open Access of Federally-Funded Research and STEM Education***

Carl Wieman, Associate Director of Science at the Office of Science and Technology Policy (OSTP), discussed the need for a scientific approach to learning that will raise science and mathematics education to new levels. Our modern society requires a more scientifically literate public and that will require more complex learning.

Wieman presented a summary on research into the learning process and discussed how teaching effectiveness can improve when certain principles are applied. He concluded his talk by asking the professional societies to take a larger role in advancing mathematics education by using the research findings of the past twenty years to guide improving mathematics instruction.

### ***NSF Planning for Open Access of NSF-Sponsored Research***

Ed Seidel, Assistant Director of NSF-MPS, presented a number of examples of voluminous data collection to illustrate two current trends: 1) the exponential growth in data and computing capabilities; and 2) very large growth in the size of the collaborations needed to solve today's complex problems. He then talked about the role publications play in helping people communicate and share data.

Seidel made three basic points on data, publication and policy: 1) publicly funded scientific data in publications should be available to the public; 2) there must be a place to keep the data and a way to access it; and 3) there needs to be an affordable, sustainable cost model. However, issues like what kind of data should be made available and when, who should be able to access it, who takes care of it and who is going to pay for it are all questions to be considered.

There are some new working groups at NSF and NSB that deal with data, publications and access to data and publications. These groups are working to develop principles from which actual implementation policies can be derived and also are working on pilot projects as experimental models.

### ***Reports from Washington Representatives***

Sam Rankin (AMS), Dave Zook (MAA), Miriam Quintal (SIAM) and Steve Pierson (ASA) all spoke to the status of the FY2011 federal budget and the FY2012 President's federal budget request. Discussion focused on how the current climate will impact funding for the National Science Foundation in the near term. There was also talk of how the community might influence the decision making process in Congress regarding NSF funding.

It was reported that AMS Past President George Andrews testified before the Committee on Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies regarding the FY2012 budget, as did David Bressoud, Past President of the MAA.

It was mentioned that the Coalition for National Science Funding (CNSF) will hold its annual Exhibition on Capitol Hill on May 11, 2011 and that the AMS, ASA and SIAM will all be exhibiting, in addition to two other exhibits with mathematical content, among the 34 total exhibits.

### ***Society Reports and Issues***

Lloyd Trefethen reported for SIAM that they are discussing supplementary materials policies for journals and are looking towards online repositories for journals that are not peer reviewed for supplementary materials. SIAM continues to found new journals (14 now, three of which are only available online). He also talked about SIAM's increase in the number of student members (4,000 now) and student chapters (90 around the country and the world). Also, they are increasing the amount of money going to students for travel to conferences.

Ron Wasserstein reported for ASA that they are increasing their involvement in partnerships with other societies regarding journals. He also sought input from the group regarding one of their journals which has had to move to a single blind review. He asked whether the other societies ever use a single blind review – with the exception of the MAA that has used both, the others reported they use a single blind review.

Tina Straley, Paul Zorn and Barbara Faires all reported for the MAA: 1) the report on the MAA Calculus Project will be coming out soon; 2) electronic memberships are being offered by the MAA whereby journals and other information is delivered electronically to members. Twenty-five percent of current memberships, including all student memberships, are electronic and they are renewing at a higher rate than traditional members; 3) MAA is looking at offering e-books and is digitizing some of its older books; 4) the search for a new MAA Executive Director is continuing, as well as a search for a new Treasurer; and 5) the Mathematics of the Planet Earth 2013 (MPE 2013) recently held a meeting where

mathematical institutes and societies came together to discuss what role each might play in this initiative. There will be a societies committee which will include Paul Zorn (MAA), Ron Wasserstein (ASA) and a representative from SIAM, among others. This committee is charged with determining ways in which the societies can work together to connect to MPE 2013, perhaps by including speakers, special sessions and panel discussions at the Joint Meetings in 2013. Other ideas included an MPE theme for Math Awareness Month in 2013 and an MPE session at the AAAS annual meeting.

Eric Friedlander reported for the AMS that the society: 1) is looking for ways to increase membership; 2) will institute student chapters very soon; 3) is supporting early career mathematicians in a number of ways including funding students to attend the Joint Meetings and sectional meetings and providing travel grants for those who have just finished their PhDs; 4) will vote in favor of a fellows program; 5) will diversify its interest in education policy to include more graduate and undergraduate education in addition to K-12; and 6) is actively searching for a new Secretary for the society.

### ***Mathematics Awareness Month***

SIAM reported that the Math Awareness Month poster for 2011 has been printed and mailed. There was discussion about how best to measure the success of the program and how to better promote it. It was suggested that the subject be broached at the upcoming CBMS meeting in order to get more input.

ASA is planning for the 2012 poster. Their idea is to use “managing data” as a theme. There was discussion about how to make this idea more interesting. Suggestions from the group included thinking about data in specific terms rather than in the abstract. Some of the ideas offered by the group included specifically focusing on personal data, transactional data, credit card purchases, travel habits, etc.

### ***JPBM Communications Award***

The AMS chairs for 2011 and is organizing the selection committee. Each organization was asked to designate one person to serve on the committee (usually the Executive Director or Secretary of the organization) and email Don McClure or Bob Daverman with the name. Paul Zorn volunteered for the MAA.

### ***Date of Next Meeting***

The spring 2012 JPBM meeting will be held on Monday, April 30, 2012 in Washington, DC.

Submitted by Anita Benjamin  
American Mathematical Society  
October 17, 2011