Minutes of ICMS 2014 Business Meeting

Hanyang University, Seoul, Korea

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Summary

The "International Congress of Mathematical Software" (ICMS) is a community of researchers and practioners centered around "mathematical software" as a **scientific activity**. This community has organized four conferences:

(1) ICMS 2002: Chinese Academy of Sciences (Location: Beijing, China)
(2) ICMS 2006: University of Cantabria (Location: Castro Urdiales, Spain)
(3) ICMS 2010: Kobe University (Location: Kobe, Japan)
(4) ICMS 2014: Hanyang Univesity (Location: Seoul, Korea)

The business meeting for ICMS 2014, led by Chee Yap, had 3 main topics:

- Section 1: Report about the current ICMS 2014 meeting
- Section 2: Summary, comments, and approval of the Bylaws of ICMS
- Section 3: Feedback about the future of ICMS and mathematical software

1. Report about ICMS 2014

As a summary, ICMS 2014 has approximately 130 attendees, of which approximately 30 are students. The attendance was diverse in both the countries represented as well as the research areas.

The conference has a balanced budget. In addition to registration fees, the conference is supported by Hanyang University and the National Institute for Mathematical Sciences (NIMS).

Chee Yap can provide data about the attendees and budget as needed.

2. Bylaws of ICMS

The "Bylaws of ICMS" aim to encode the vision for the group. Comments made during the discussion resulted in one modification to the Bylaws. A motion was made to replace

```
The Bylaws can be amended by ballot, either at the ICMS Business meeting or
by email.
```

with

```
The Bylaws can be amended by ballot, either at the ICMS Business meeting or
by email.  At the ICMS Business meeting, passage of amendments require a
two-thirds majority.  By email, passage of amendments require at least
30 votes to be cast and a two-thirds majority of the votes cast.
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This motion passed.

Acceptance of the Bylaws, with this change, was then passed.

During the discussion about the Bylaws, several relevant comments were made:

- Should the Bylaws restrict Program Chairs from submission?

- – Historical precedent should be followed since it may be too limiting and potentially damaging to students collaborating with the Program Chair if the Bylaws include such language.
- • ICMS needs to maintain an email list.
  - – Michael Kohlhase has agreed to maintain this email list.
- • ICMS needs a permanent website.
  - – The website `icms-conference.info` was suggested, but this remains an open problem.

3. Feedback about future of ICMS

The first four ICMS conferences have been a satellite conference of the "International Congress of Mathematicians" (ICM), with ICM 2018 in Rio de Janeiro, Brazil. In order to build a stronger community, it was suggested that ICMS move from a quadrennial cycle to a biennial cycle.

Since publication is an extremely important part of academic research, there were several comments related to publication:

- • `swMATH.org` is a new database for references on mathematical software, which includes over 7400 software packages and 70000 references from `zbMATH.org`.
- • A discussion about creating a new journal was postponed due to "software friendly" journals currently in existence. It remains an open problem to create a list of such journals.
  - – Michael Joswig mentioned *Mathematical Programming Computation* and *Journal of Software for Algebra and Geometry.* He also urged the many attendees of editorial boards in the audience to facilitate publications related to software.
  - – Nick Trefethen mentioned *ACM Transactions on Mathematical Software* and discussed a widely-held viewpoint in scientific research of equating "software" with "numerics."
  - – James Davenport mentioned *LMS Journal of Computation and Mathematics*, which includes a repository for archiving software and discussed the mismatched expectations between authors and editors.
  - – Jonathan Borwein mentioned a recent workshop at ICERM on mathematical software and discussed "community standards" for software. This includes realistic expectations, a list of good practices, education of journal publishers, a culture of integrating research and software, and a robust way of identifying "ingenious" code.

A database for software packages represented at ICMS was requested. This will be spearheaded by Chee Yap.