

**MINUTES OF THE FOURTH MEETING OF  
THE COMMITTEE ON ELECTRONIC INFORMATION  
AND COMMUNICATION (CEIC)  
OF THE INTERNATIONAL MATHEMATICAL UNION  
HELD AT THE IAS, PRINCETON, MAY 12–14, 2001**

**Membership and Participation.** Peter Michor (Austria), Jonathan Borwein (Canada), John Ewing (USA), Martin Groetschel (Germany), Wilfrid Hodges (UK), David Morrison (USA), Kapil Paranjape (India), Alf van der Poorten (Australia), Alexei Zhizhchenko (Russia). By invitation: Roland Schwaenzl (Germany). Did not attend: Jonas Gomes (Brazil), Qing Zhou (China). [Jacob Palis, President of the IMU, attended a substantial portion of the Committee's meeting].

The CEIC met on Saturday, May 12 (commencing at 10:00) and through Sunday, May 13. It held a joint meeting with the Executive Committee of the IMU on Monday morning, May 14 following which there was a further short meeting to recall tasks accepted by members (concluding at 12:30).

1. MEETING OF THE COMMITTEE

1.1. **Preliminaries.** Agenda, Minutes of the previous meeting.

1.2. **Technical Matters and Reports.**

1.2.1. *Math-Net.* Martin Groetschel spoke on ‘Math-Net: The Current State of the Art’. Remarks on the internationalization of Math-Net included: In UK there is Math-Gate. Brazil has not been a sucess. *Persona Mathematica* will be further developed in India, as proposed by Kapil Paranjape. The MPRESS mirror in EMIS is often down. Domain-names should be transferred from W. Dalitz to the IMU.

1.2.2. *arXiv and preprint servers in other sciences.* Pub-Med Central in the medical sciences is going online. Science server will become freely accessible with a moving wall of 6 months. Commercial preprint servers: Elsevier server.

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Version 1.0 by PM, October 1, 2001. Version 1.3 by AvdP, October 9; Version 1.6 by AvdP, November 2; Version 1.7, November 16.

1.2.3. *EMIS and EMS.* Normal growth is being experienced; there are now 51 freely accessible journals, 24 mirrors in Europe, 18 elsewhere. Euler (full online version of *Jahrbuch der Mathematik*, most important papers scanned) is part of EMIS.

1.2.4. *Collaboration between preprint servers.* Here the CEIC should become active. Proposal (Michor, not serious): That Greg Kuperberg be asked to put his Front of the arXiv under a secondary homepage, and that ZIB offers to migrate its preprint archive into the arXiv.

1.2.5. *Activities of AMS.* John Ewing did not want to repeat the items from his report at the previous meeting, and consequently limited his remarks to updating the committee on the STIX project (to create a complete set of fonts to accompany the large number of mathematical glyphs added to unicode). This is a project sponsored jointly by six publishers (mainly scientific societies).

1.2.6. *Activities of CMS/SMC.* Jon Borwein reported that the Society has some 1200-1500 members. All 4 publications are now digital. The Society, and the three institutes PIMS, Fields Institute, and CRM, will all install secondary homepages.

1.2.7. *Activities of LMS.* Wilfrid Hodges reported that he is no longer closely involved with the London Mathematical Society, but he obtained the following report from the LMS Publications Secretary (Chris Lance, 9 May 2001):

“All our print journals are available online. We have acquired a DOI prefix for the LMS, and are moving towards using CrossRef (in cooperation with our publishing partners CUP, IOP and Turpion).

Our electronic journal, the LMS JCM, maintains high academic standards, but does not receive as many good papers as it would like. For the years 2000 and 2001, it is only available to paying subscribers. A subscription to the LMS Proceedings includes one to the JCM. Other than these bundled subscriptions, the JCM has only attracted a few individual subscriptions, and scarcely any library subscriptions. For this reason, the LMS Council recently decided that as from 2002 the JCM should again be made freely available. If and when the size of the journal increases substantially from its present level, we intend to reintroduce a subscription system.

At present, we do not have any plans for further electronic journals.”

1.2.8. *Activities of DMV.* See <http://www.mathematik.de>.

1.2.9. *Activities of other mathematical Societies.*

1.2.10. *Report from the discussion forum EMJ.*

1.2.11. *UNESCO/ICSU Conference “Electronic publishing in science”.* Alf van der Poorten reported briefly on the meeting held in Paris, February 20–23, emphasising the importance of mathematics being represented at general scientific meetings. See also UNESCO\-\report an attachment to these minutes.

1.3. **Copyright issues.** A draft of an Executive Summary, to accompany the Copyright checklist, had been prepared. A revised version was agreed after a lively discussion. Both the Executive Summary and the checklist may be found at <http://www.maths.qmul.ac.uk/~wilfrid/copyright.html>.

The Committee acknowledged its indebtedness to Wilfrid Hodges and thanked him for his outstanding contribution to its work.

1.4. **Standards.** Roland Schwaenzl made a presentation ‘Some Remarks about MathML’. It was agreed that the CEIC should produce an article on standards in electronic communications, on MahtML, pdf, TeX, SGML, Unicode, . . . , reviewing the present state of play. A group was formed of Jon Borwein, Alf van der Poorten (chair), Roland Schwaenzl, and David Morrison, also Patrick Ion should be contacted.

1.5. **Call to mathematicians with homepages.** Following a brief presentation by Alf van der Poorten on ‘Storing mathematics electronically; notes for the uneducated’, Peter Michor produced the notion that mathematicians be urged to consider scanning their older publications and then to put them online, for fair use only, and for the benefit of developing countries. A suitable ‘Call to mathematicians’ was then formulated.

In discussion of what has been done, Dave Morrison mentioned that he has all papers online already (<http://www2.math.duke.edu/publications/drm>); it was suggested that Juergen Moser’s collected works could be done in this way.

It was resolved that a webpage with technical advice for several operating systems should be prepared: see for example <http://www.mat.univie.ac.at/~michor/howto.html>.

Resolutions suitable for presentation to the EC were formulated.

1.6. **World Directory of Mathematicians.** It was agreed that for 2002 there was no alternative to preparing a print directory, as in the past. Looking to the future, members of the Committee noted that privacy laws may well inhibit the highly desirable alternative of maintaining a publicly accessible electronic list of mathematicians.

**1.7. Miscellaneous.** The Committee discussed a suggestion by the European Physical Society to sign a formal agreement concerning Math-Net. It came to the view that such a proposal was inappropriate at this level and should be politely rejected in favour of offers of local and regional cooperation on a less formal basis.

## 2. MEETING WITH THE EXECUTIVE COMMITTEE

**2.1. Reports to the EC.** The following reports were given:

2.1.1. How CEIC functions (Peter Michor)

2.1.2. Review of “how we stand with respect to our “terms of reference” (Martin Groetschel).

2.1.3. arXiv and standards (David Morrison)

2.1.4. MPRESS and Metadata (Roland Schwaenzl)

2.1.5. EMIS (Peter Michor)

2.1.6. ‘Personal collected works’ (Alf van der Poorten). Here, after suitable amendments, the ‘Call to mathematicians’ was accepted by the EC.

2.1.7. Copyright checklist (Wilfrid Hodges). The executive summary was accepted by the EC with the proviso that it be amended by adding a suitable introduction. It was suggested that that it be arranged that the Copyright Checklist somehow, some time, be presented to the ICSU.

2.1.8. Math-Net (Martin Groetschel, Jon Borwein)

2.1.9. The world directory (John Ewing)

**2.2. ICM 2002.** Members of the EC recommended there being a CEIC afternoon in Beijing 2002 and presentation at GA 5. It was accordingly agreed that the CEIC organize an afternoon at ICM2002 (Beijing) on electronic communication and information and that on behalf of the IMU it organize a similar such session at ICIAM2003 (Sydney).

**2.3. Future of the CEIC.** It was remarked that the CEIC should have finite lifetime and that, in particular arrangements should be made for an orderly and gradual change in its membership. [In subsequent discussion Peter Michor indicated his wish to withdraw as Chair of the Committee in 2002, and his intention to recommend that Jon Borwein take over that task].

ATTACHMENTS

- [1] UNESCO\_report
- [2] Copyright Checklist (What do you want from your publisher):  
[http://elib.zib.de/IMU/IMU\\_Committees/want\\_pub.html](http://elib.zib.de/IMU/IMU_Committees/want_pub.html)
- [3] Call to mathematicians:  
[http://elib.zib.de/IMU/IMU\\_Committees/call\\_authors.html](http://elib.zib.de/IMU/IMU_Committees/call_authors.html)