

The Establishment of the Committee on Electronic Information and Communication (CEIC) of the International Mathematical Union (IMU).

Topic 7. of the Minutes of the IMU General Assembly (GA) in Dresden, August 1998:

7. Creation of a Committee on Electronic Information and Communication

The GA approved an Enabling Resolution to form an IMU Committee on Electronic Information and Communication (CEIC), based on the following proposal of the EC:

1. In the last decade, the internet has been transforming our communication and commerce. In the world of science, the internet is radically changing the modes of information transfer at all levels. Communication on hand-written and printed paper, distribution via postal mail and libraries is a system which has been stable for many centuries. We cannot foresee clearly the new system which is evolving except that it will involve electronic media and it will radically alter the economics of communication. This transformation will certainly be global and will affect mathematical research on all continents.

2. We strongly believe that the IMU can play several important roles during this transition. Among these are:

(i) it can provide a forum where all parties, i. e., all countries and all interest groups (individual researchers, professional societies, publishers, and libraries) can discuss the issues and it can publish

proceedings to increase general understanding of all the issues involved,

(ii) it can recommend and promote international standards on electronic communication among mathematicians, when needed,

(iii) it can act as a liaison between regional, national and local groups, coordinating their initiatives and discussions.

3. We therefore propose that the GA establish a Committee on Electronic Information and Communication (CEIC) to accomplish its objectives whose terms of reference and initial additional membership will be decided by the ad hoc committee consisting of John Ewing, Martin Groetschel, Peter Michor, David Mumford and Jacob Palis and sent by mail ballot to all adhering organizations for approval.

The Terms of Reference for the Committee were discussed at the General Assembly and an ad hoc Committee formed by John Ewing, Martin Grötschel, Peter Michor, David Mumford and Jacob Palis, was established to complete such Terms and to suggest its initial membership. These Terms of Reference and initial membership will be sent to the Adhering Organizations for approval.

The CEIC Terms of Reference (see below) drafted by the ad hoc Committee were sent to all Adhering Organizations in July 1999 (IMU Circular Letter 01/99) and were approved by Postal Ballot.

Building on the enabling resolution passed by the General Assembly (GA) in Dresden on August 16, 1998, the Executive Committee of the International Mathematical Union establishes a Committee on Electronic Information and Communication (CEIC) of the International Mathematical Union (IMU).

Terms of Reference:

a.. The CEIC shall be a standing committee of the Executive Committee (EC) of the IMU, to be reviewed every four years by the EC at its meeting preceding that of the GA. Members will be appointed for four year terms by procedures similar to those for Commissions of the IMU. The Executive Committee will appoint one of its members to serve on the CEIC.

b.. The CEIC may meet as necessary in each four year period, review the development of Electronic Information and Communication as it impacts the international mathematical community and submit a report to the EC.

c.. The CEIC may organize or sponsor international meetings or forums to bring together representatives of all interested parties, including societies, publishers, libraries, and researchers, publish and otherwise disseminate proceedings, reviews of recent developments, and technical surveys for the use of the mathematical community.

d.. The CEIC may recommend international standards on issues related to electronic communication. Such recommendations should be reviewed by the EC and, if approved, may be published and promoted in the name of the IMU.

e.. During its first 4 year term, the CEIC is specifically asked to address the coordination of world-wide efforts to establish web-based servers for mathematical papers, preprints, journals, and books. This includes issues of uniformizing metadata, document identifiers and supported formats, promoting mirroring and the development of search engines for mathematical material and coordination of existing servers. It should publish its findings with the goal of making the use of these servers universally understood and usable by the whole mathematical community. It is also asked to consider transferring the World Directory of Mathematicians to an electronic freely accessible form.

f.. Membership:

a.. Peter Michor (chair), University of Vienna, Vienna, Austria;

Peter.Michor@esi.ac.at

b.. Jonathan Borwein (deputy chair), Simon Fraser University, Burnaby, Canada;

jborwein@cecm.sfu.ca

c.. John Ewing, American Mathematical Society, Providence, USA;

jhe@ams.org

d.. Jonas Gomes, IMPA, Rio de Janeiro, Brazil;

jonas@impa.br

e.. Martin Groetschel (EC member) Konrad-Zuse-Zentrum, Berlin, Germany;
groetschel@zib.de

f.. Wilfrid Hodges, Queen Mary & Westfield College, London, UK;
w.hodgesq@mw.ac.uk

g.. David Morrison, Duke University, Durham, USA;
drm@math.duke.edu

h.. Kapil Paranjape Institute of Mathematical Sciences, Chennai, India;
kapil@imsc.ernet.in

i.. Alfred J. (Alf) van der Poorten, Macquarie University, Sydney, Australia;
alf@math.mq.edu.au

j.. Alexei Zhizhchenko, Russian Academy of Sciences, Moscow, Russia;
abz@ipsun.ras.ru

k.. Qing Zhou, East China Normal University, Shanghai, China;
qzhou@math.ecnu.edu.cn

COMMITTEE ON ELECTRONIC INFORMATION AND COMMUNICATION

Terms of Reference

August 2002

At its 70th session on August 16, 2002, in Shanghai the International Mathematical Union (IMU) Executive Committee has reviewed the activities of its "Committee on Electronic Information and Communication" (CEIC) and decided to re-establish CEIC for a second term with the following revised terms of reference:

- a) The CEIC is a standing committee of the Executive Committee (EC) of the IMU, reviewed every four years by the EC at its meeting preceding that of the GA. Members are appointed for four year terms by procedures similar to those for IMU Commissions. The EC appoints one of its members to serve on the CEIC.
- b) The CEIC may meet as necessary in each four year period to review the development of Electronic Information and Communication as it impacts the international mathematical community, and is asked to submit an annual report to the EC.
- c) The CEIC may organize or sponsor international meetings or forums to bring together representatives of all interested parties, including societies, publishers, libraries, researchers, and sister disciplines. It may publish, electronically or on paper, and otherwise disseminate proceedings, reviews of recent developments, and technical surveys for the use of the mathematical community.
- d) The CEIC may suggest international standards ('best practice recommendations') on issues related to electronic communication. Such recommendations should be reviewed by the EC and, if approved, may be published and promoted in the name of the IMU.
- e) The CEIC is expected to continue its previous efforts such as the promotion and organization of Math-Net and related activities that make mathematics related material electronically available. In carrying out its activities, CEIC is asked to continue soliciting the views of the mathematical community through the CEIC and the Math-Net homepages. The CEIC is asked to address, in its second 4-year term, the following issues with special emphasis.
- f) The CEIC is requested to enhance its advisory role with the aim - to make the issues involved generally understood, - to define the relevant needs of our discipline clearly, - to shape the role the mathematical community needs to play, and - to guide the practice of scholarly communication and publication.
- g) The CEIC is asked to take an active part in any development of a Digital Mathematics Library, to further address copyright and archiving issues, journal licensing models, and cost models for journal production and acquisition.
- h) The CEIC is requested to draft a proposal, to be decided upon by the EC in 2006, concerning its future status. The proposal should include issues such as CEIC's institutionalization, membership, long term financing, and sustainability of the various current CEIC efforts and activities.

CEIC Revised Mandate for 2006-2010

At its 71st session on August 19, 2006, in Santiago de Compostela the IMU Executive Committee has reviewed the activities of its "Committee on Electronic Information and Communication" (CEIC) and decided to re-establish CEIC for a third term with the following revised terms of reference:

As an international steward of mathematical science, the IMU has accepted a responsibility to advance the use of new technologies. It has therefore established the CEIC to advise it on how best to accomplish that goal.

1. The CEIC's duties are to:

- Review the development of Electronic Information, Communication, Publication, and Archiving as it impacts the international mathematical community with the goal of making the issues involved generally understood, and of defining the relevant needs of our discipline clearly.
- Encourage electronic mathematical community building and to contribute to the development of tools for this purpose.
- Review and sponsor activities for mathematical software and data repositories.
- Coordinate and facilitate collaboration among stakeholders in these and related activities for the benefit of mathematics worldwide.
- Report regularly to the EC, and to advise and alert the EC to new developments.
- Advise the EC on electronic aspects of IMU operations, including financing requirements.
- Suggest further actions as necessary.

2. The CEIC is a standing committee of the Executive Committee (EC) of the IMU, reviewed every four years by the EC at its meeting preceding that of the GA. Members are appointed in even numbered years for staggered four year terms using criteria similar to those for IMU Commissions. The CEIC conducts most of its work electronically, meeting physically as necessary.

3. In its third 4-year term, the CEIC is asked to address the following issues with special emphasis.

a. The CEIC is asked to facilitate and encourage the development of a Digital Mathematics Library.

b. The CEIC may suggest international standards (`best practice recommendations`) on issues related to publication and electronic communication. Such recommendations will be reviewed by the EC and, if approved, may be published and promoted in the name of the IMU.

c. The CEIC is expected to continue its previous efforts (such as its once promotion and organization of Math-Net and the current Federated World Directory of Mathematicians) that make mathematics-related material electronically available.

d. The CEIC may organize or sponsor international meetings or forums to bring together representatives of all interested parties.

COMMITTEE ON ELECTRONIC INFORMATION AND COMMUNICATION

Terms of Reference

Approved by the IMU Executive Committee in June 2008

The CEIC is a standing committee of the Executive Committee of the International Mathematical Union, reviewed every four years by the EC at its meeting preceding that of the IMU General Assembly. Members are appointed in even-numbered years for staggered four year terms, normally commencing on January first of the following year, using criteria similar to those for IMU Commissions.

The mandate of the CEIC is to advise the EC on matters concerning information and communication.

The CEIC's duties include:

- Reporting regularly to the EC, advising it on aspects of IMU operations related to information and communication, including financial implications, and keeping it informed of new developments.
- Reviewing the development of electronic information, communication, publication, and archiving so as to keep the EC abreast of current and emerging issues.
- Advising the EC about potential opportunities to endorse standards ('best practice recommendations') on issues related to publication and communication, including such matters as the use of software and data repositories.
- Advising the EC about potential opportunities to foster the growth of electronic infrastructure, and selectively creating tools for this purpose (such as the Federated World Directory of Mathematicians or links to other tools).