

**Bulletins of the  
International  
Mathematical Union**



**Bulletin of the IMU, No. 40 (1996)**

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**Bulletin of the International Mathematical Union**

*Bulletins of the International Mathematical Union, No. 40, 49 pp. (1996)*

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DOI: [The DOI will be assigned later]

# Bulletin of the International Mathematical Union

No. 40, December 1996

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# The International Mathematical Union

## Executive Committee

January 1, 1995 to December 31, 1998

***President:***

[David Mumford](#)

***Vice Presidents:***

[Vladimir Arnold](#)

[Albrecht Dold](#)

***Secretary:***

[Jacob Palis](#)

***Members:***

[James Arthur](#)

[Simon Donaldson](#)

Björn Engquist

[Shigefumi Mori](#)

[K.R. Parthasarathy](#)

***Past President:***

Jacques-Louis Lions

# Members of the Union

The following countries were members of IMU as of January 1, 1996:

**Group I:**

[Armenia](#), [Bulgaria](#), [Cameroon](#), [Croatia](#), [Cuba](#), [Egypt](#), [Greece](#), [Hong Kong](#), [Iceland](#), [Ivory Coast](#), [Democratic Republic of Korea](#), [Kazakhstan](#), [Lithuania](#), [New Zealand](#), [Nigeria](#), [Norway](#), [Philippines](#), [Portugal](#), [Romania](#), [Saudi Arabia](#), [Singapore](#), [Slovenia](#), [Tunisia](#), [Turkey](#), [Vietnam](#), [Venezuela](#)

**Group II:**

[Argentina](#), [Austria](#), [Chile](#), [Czech Republic](#), [Denmark](#), [Finland](#), [Georgia](#), [Iran](#), [Ireland](#), [Mexico](#), [Republic of Korea](#), [Slovak Republic](#), [South Africa](#), [Yugoslavia](#)

**Group III:**

[Australia](#), [Belgium](#), [Brazil](#), [Hungary](#), [India](#), [Netherlands](#), [Poland](#), [Spain](#), [Sweden](#), [Switzerland](#)

**Group IV:**

[Canada](#), [Israel](#), [Italy](#)

**Group V:**

[China](#), [France](#), [Germany](#), [Japan](#), [Russia](#), [United Kingdom](#), [USA](#)

In the last IMU Meeting, held in New York from April 11-12, 1996, the following countries were accepted as new country members of the Executive Committee of IMU, in Group I, as for January 1, 1997: [Latvia](#) and [Uruguay](#)

# IMU AND ICM ON THE WORLD WIDE WEB

All the information of IMU and ICM/98 are available in the IMU homepage:

<http://elib.zib.de/IMU>

The following messages about ICM98 and the International Mathematical Union, are available to all persons who have electronically preregistered for the INTERNATIONAL CONGRESS OF MATHEMATICIANS 1998 IN BERLIN. More information about ICM98 can be found in the ICM98 WWW-server (URL: <http://elib.zib.de/ICM98>). This WWW-server also offers an electronic preregistration form. If you do not have access to the World Wide Web and would like to subscribe to the ICM98 circular letters, just send an e-mail to: [icm98@zib.de](mailto:icm98@zib.de) writing PRELIMINARY PREREGISTRATION into the SUBJECT line.

To all mathematicians who have preliminarily preregistered for the International Congress of Mathematicians 1998 in Berlin

Eighth Circular Letter, October 12, 1996

Subject: ICM98-CL8: Financial support for mathematicians from  
Eastern Europe and the independent states of the former Soviet  
Union

The ICM'98 Organizing Committee has already received quite a number of requests concerning financial support for participation at the International Congress of Mathematicians 1998 in Berlin. The Circular Letter ICM98-CL6 describes the way how mathematicians from developing countries can apply for financial help. The local Organizing Committee is currently making efforts to obtain donations from German industry, government, foundations and individuals to be able to partially support mathematicians from Eastern Europe and the independent states of the former Soviet Union.

To secure participation of as many persons as possible the local Organizing Committee will only support local costs in Berlin. Berlin is very close to Eastern Europe, and it is expected that applicants will find other means to cover their travel costs.

To handle the applications and manage the financial support the ICM'98 Organizing Committee has set up a subcommittee, called

Committee for Support of Mathematicians from Eastern Europe (CSMEE).

CSMEE will distribute application forms for grants, as described above, for mathematicians from Eastern Europe in late summer 1997. These forms will be made available through the ICM'98 server (<http://elib.zib.de/ICM98>) and by e-mail.

Applicants will be asked to provide a brief curriculum vitae (including academic education, degree, professional employment, and a list of publications).

Applicants should submit their application form before January 1, 1998 to CSMEE to one of the following addresses:

Prof. Dr. H. Kurke  
Humboldt-Universitaet  
Institut fuer Mathematik  
Ziegelstrasse 13A  
D-10099 Berlin  
Germany  
e-mail:  
[kurke@mathematik.hu-berlin.de](mailto:kurke@mathematik.hu-berlin.de)

Prof. Dr. W. Roemisch  
Humboldt-Universitaet  
Institut fuer Mathematik  
Unter den Linden 6  
D-10099 Berlin  
Germany  
[romisch@mathematik.hu-berlin.de](mailto:romisch@mathematik.hu-berlin.de)

All applications will be reviewed.

Further questions concerning financial support for mathematicians from Eastern Europe to attend ICM'98 should be directed to Professors Kurke or Roemisch.

Sincerely,

Martin Groetschel

President of the ICM98 Organizing Committee

The following letter has been sent to all Adhering Organizations and National Committees of IMU and many other mathematical organizations:

To all mathematicians who have preliminarily preregistered for the International Congress of Mathematicians 1998 in Berlin

Sixth Circular Letter

Subject: ICM98-CL6: Financial support for mathematicians from developing countries,  
IMU Special Development Fund

Dear colleague:

the International Mathematical Union will provide a number of travel grants to young active mathematicians from developing countries to attend the INTERNATIONAL CONGRESS OF MATHEMATICIANS 1998 IN BERLIN, and the local Organizing Committee will cover their living expenses.

We are aware of the fact that quite a number of mathematicians eligible for financial support cannot be reached with this e-mail message. Please help us distribute the announcement below to persons who you think are interested in applying for the grants.

IMU would like to increase the number of travel grants and is seeking donations to its SPECIAL DEVELOPMENT FUND for this purpose. Please consider contributing to the SPECIAL DEVELOPMENT FUND yourself or ask your national mathematical society to take an appropriate action, see below for more details.

Sincerely,

Martin Groetschel  
President of the ICM98 Organizing Committee

P.S.: The Circular Letter ICM98-CL5 generated several requests. I was asked about additional information about the Fields Medal and Nevanlinna Prize winners. More details can be found in the IMU-server (URL: <http://elib.zib.de/IMU>) by simply clicking on the item "Fields Medals and Nevanlinna Prizes". Most of this material (pictures of the awardees, etc.) has been scanned from the book

Albers, Donald J.; Alexanderson, G. L.; Reid, Constance:  
International mathematical congresses. An illustrated history  
1893 - 1986, Rev. ed. including ICM 1986. Springer-Verlag,  
New York, 1986

which contains an interesting account of the development of the ICMs and the prizes. For the more recent congresses and prizes, we scanned material from the proceedings volumes. We are grateful to the copyright holders for the permission to scan the texts and pictures.

# Travel Grants for Young Mathematicians to attend the International Congress of Mathematicians

The International Mathematical Union will award travel grants to young mathematicians to help them to attend the ICM-98, Berlin, Germany August 18-28, 1998. The grants are intended primarily for young mathematicians from developing countries (not necessarily members of IMU). Please notice that mathematicians from other countries with strict monetary regulations are not part of this program, but shall also be considered directly by the Local Organizing Committee.

The age-limit for the grantees is 35 years at the occasion of the Congress. The candidates should present evidence of research work on post-doctoral level, and they should be able to benefit from the interaction with mathematicians from other countries attending the Congress.

In addition to the name and address of the candidate, the applications should contain a brief curriculum vitae, including date of birth, plus a list of publications (papers published or accepted for publication).

The Local Organizing Committee of the International Congress of Mathematicians will provide a special allowance to the grantees to cover their registration, board and lodging.

Applications for the travel grant may be sent directly to the Secretary of the Union, preferably by e-mail or fax. Applications may also be submitted through the Committees for Mathematics, which in such a case will send all the relevant information about the candidates to the Secretary.

All applications should reach the Secretary by January 1, 1998:

IMU SECRETARIAT:  
International Mathematical Union  
Professor Jacob Palis, Secretary  
Estrada Dona Castorina, 110, Jardim Botânico  
22.460-320 - Rio de Janeiro, RJ  
Brazil  
Fax:(55) (21) 512 4112  
e-mail: [imu@impa.br](mailto:imu@impa.br)

# **Electronical Availability of the World Mathematical Year 2000 Newsletter and IMU Canberra Circular**

The World Mathematical Year 2000, as well as the IMU Canberra Circular are now available on

<http://elib.zib.de>

<http://www.math.jussieu.fr> and

<http://www.emis.de> (WMY 2000)

<http://wwwmaths.anu.edu.au/imu.html> (IMU Canberra Circular)

# Special Development Fund

The Special Development Fund helps IMU to fulfill the important obligation of helping developing countries within the framework of mathematical research. The means of the Fund, which go unreduced to mathematicians from developing countries, are used primarily for travel grants to young mathematicians, to make it possible for them to participate in International Congresses of Mathematicians. The Executive Committee of IMU elects an international committee to distribute the grants.

Means to the Special Development Fund come from donations. Donations can be sent, at any time and in any convertible currency, to the following account:

Account no. 0862-656208-21  
Schweizerische Kreditanstalt  
Stadtfiliale Zürich-Rigiplatz  
Universitätstrasse 105  
CH-8033 Zürich  
Switzerland

The following contributions have been received in the years 1991-1996:

1991	
American Mathematical Society	US \$ 14.772,93
Royal Society	US \$ 8.780,27
London Math. Society	US \$ 1.730,10
1992	
American Mathematical Society	US \$ 27.787,00
Wiskundig Genootschap, Netherlands	US \$ 1.825,40
Royal Society	US \$ 8.377,21
Deutsche Math. Vereinigung	US \$ 6.406,74
1993	
American Mathematical Society	US \$ 32.500,95
Wiskundig Genootschap, Netherlands	US \$ 1.418,43
1994	
American Mathematical Society	US \$ 30.550,06
Mathematical Society of Japan	US \$ 18.881,11
Royal Society	US \$ 4.477,00
Com. Nat. Frac. Math., France	US \$ 3.404,86
CNPq, Brazil	US \$ 6.944,44
1995	
American Mathematical Society	US \$ 33.227,89
CNPq, Brazil	US \$ 10.000,00
London Mathematical Society	US \$ 3.263,12
1996	
American Mathematical Society	US \$ 31.807,41
London Mathematical Society	US \$ 3.639,60

# World Directory Of Mathematicians - 1998

National Committees and Mathematical Societies are requested to prepare the list of mathematicians in their country. Each of them should be the authors of at least two papers published in journal whose articles are internationally reviewed . E-mail address and fax numbers should also be provided, when possible. The lists shall be sent to the American Mathematical Society, before October 15, 1997.

# Elections

Following the Resolution 6 of the last General Assembly, the Executive Committee of IMU redrafted the proposed Procedures for the Election of the [Executive Committee of IMU](#), as well as those of [ICMI](#), [CDE](#) and [ICHM](#). They have been sent to all IMU Adhering Organizations and National Committees as follows:

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## Procedures for the Election of the [Executive Committee of IMU](#) 1998

1. Not less than a year before the meeting of the GA, the [EC](#) shall request proposals for the membership of the [EC](#) from the National Committees for Mathematics, to be considered before the meeting of the [EC](#) in the spring before the Assembly.
2. The [EC](#) shall then draw up its own list of nominations, making certain that each candidate is willing to serve if elected. The slate should be mailed to the National Committees at least three months before the GA, together with background on the candidates, their fields and countries/geographic areas.
3. After the slate drawn by the [EC](#) is known, the National Committees can make further proposals of names specifically for the offices of President, Secretary, Vice-President, and Members at large. These proposals shall reach the Secretary not less than one month before the GA. The same information as in (2) concerning the nominees, including their willingness to serve if elected, should be provided. The Secretary will inform all National Committees of these last proposals before the GA. The National Committees are asked to cooperate in having their delegates to the GA fully informed.
4. The [EC](#) might modify its list in view of (3)
5. On the first day of the meeting, the General Assembly shall appoint a Nominating Committee (NC) consisting of:
  - a) the President (chairman),
  - b) all Past Presidents who are present (ex-officio),
  - c) eight further delegates.

Election to (c) shall be from names either proposed by the President or proposed and seconded from the floor; and shall be by show of hands unless the meeting decides otherwise.

6. The NC shall propose a slate drawn from the slate of the [EC](#) and the names in (1) and (3) and shall make it known to the meeting.

No person shall be a candidate for more than one office.

7. Further nominations can be made from the floor after the slate of the NC has been declared, provided that they are drawn from names previously offered by the National Committees as in items (1) and (3), signed by at least ten delegates and convey the same information as in (2) and (3) above.

8. The General Assembly shall then elect the new President, Vice-President, Secretary and Members at large by written ballots from the [EC](#) and NC slates as well as the list of nominations from the floor. (unless a candidate withdraws), but no others.

A vote shall be invalid if more names are marked in any category than the number of places to be filled (i.e., one each for President and Secretary, two for Vice-Presidents and five for Members at large).

A candidate for President or Secretary may be elected only if unopposed or if he or she obtains a majority of the votes cast. If the first ballot is indecisive, there shall be a second ballot.

In the ballots for the Vice-Presidents and Members at large, the two or five candidates respectively who obtain the largest numbers of votes shall be elected. In the event of a tie, the President shall decide.

Note: Statute (9) provides (inter alia) that: ``each delegation shall be free to cast the votes to which it is

entitled either as a unit or divided in such a manner as it may determine".

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## **Procedures for the Election of the [Executive Committee of ICMI](#)**

The rules for the election of the Executive Committee of ICMI are similar to those for the election of the Executive Committee of IMU with the same Nominating Committee.

The EC of IMU shall request proposals for the membership of the EC of ICMI from the National Committees for Mathematics and will conduct extensive consultations with the existing Executive Committee of ICMI before proposing slates to the Nominating Committee.

No person can be a candidate for more than one office.

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## **Procedures for the Election of [CDE](#)**

The rules for the election of the Commission of Development and Exchange are similar to those for the election of the Executive Committees of IMU and ICMI with the same Nominating Committee.

The EC of IMU shall request proposals for the membership of CDE from the National Committees for Mathematics and will conduct extensive consultations with the existing CDE before proposing slates to the Nominating Committee.

No person can be a candidate for more than one office.

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## **Procedures for the Election of [ICHM](#)**

The rules for the election of the two IMU members of the Executive Committee of ICHM are similar to those for the election of the Executive Committees of IMU, CDE and ICMI, with the same Nominating Committee.

The EC of IMU shall request proposals for the membership of the two IMU members from the National Committees for Mathematics and will conduct extensive consultations with the existing ICHM before proposing slates to the Nominating Committee.

# ICM - 2002

Following the recommendation of the 1990 General Assembly in Kobe, Japan, the Executive Committee has approved the following guidelines for the operation of the Site Committee for ICM-2002.

1. The Site Committee will consist of the members of the Executive Committee and Prof. Martin Groetschel, President of the Organizing Committee of the ICM-1998.
2. All Adhering Organizations are now formally invited to place bids to hold ICM-2002. To be considered by the Site Committee, these bids must be received by the Secretary of IMU by November 30, 1996. The Site Committee will then make its recommendation by May 31, 1997. The recommendation of the Site Committee will immediately afterwards be communicated to all Adhering Organizations.
3. The final decision will be taken by the General Assembly to be held at the middle of August, 1998, just prior to the ICM-98 in Berlin. The General Assembly is free to consider bids placed after November 30, 1996 but the E.C. considers most advisable that the Adhering Organizations comply with the above procedure.
4. While it is impossible to spell out precisely all factors that will influence the final recommendation of the Site Committee, it will take into account the mathematical ambiance, the infrastructure and the economic conditions offered by each bidder, as well as the accessibility of the proposed site and the broad geographical distribution of congresses. All countries interested in making a bid are strongly encouraged to do so.

Notes on what information the Site Committee would like to have for each bid are:

# Bids For ICM-2002

## Requested Information

Among other relevant information that each potential host country may want to supply, the Site Committee wishes to know about the following items:

### I. FINANCES

Clearly, costs may vary considerably from country to country. However, according to the reports of the latest ICM'S, a potential host country may consider a budget of about 1.5 million US dollars, of which about 0.5 or 0.6 million US dollars might be raised through registration fees (such fees should be at most about 200 US dollars). Again, these numbers may go up or down according to local costs and facilities. In considering the budget, printing costs of the Proceedings and other material (posters, announcements, summary of invited lectures,...) as well as mailing, deserve special attention. The host country should be prepared to lodge freely about 120 young research mathematicians from developing countries, selected by IMU; they get their trips paid by IMU through its Special Development Fund. Also, in special cases, invited speakers are expected to receive some financial support for attending the meeting when other funds to cover their expenses are not available. Registration fees are waived for invited speakers and the above young research mathematicians from developing countries. On the other hand, it is to be noted that there is an IMU subvention to the ICM as well as some provision in its budget to defray costs of the General Assembly Meeting that takes place just before the Congress. For 1998, these sums amount to 106,000 Swiss Frs. and 16,000 Swiss Frs., respectively.

### II. INFRASTRUCTURE

It is important that good facilities to hold the Congress are available. All lectures should take place in sizable, well equipped, pleasant and audible rooms. Special attention should be given to the plenary talks.

### III. ACCESSIBILITY

The city and site of the Congress should be easily accessible. That is, flight connections from all over the world should be easily available, as well as transportation to the site of the Congress. Lodging facilities constitute an important item.

Finally, it is expected that the local mathematical community gets involved in the preparations of the Congress, so as to create a nice ambiance during the meeting.

# Archives of the IMU as of June 1996

## Preface

At its meeting in April 1990, the Executive Committee of the IMU agreed that the archives of the Union should be arranged and [catalogued](#). In addition, the Committee expressed the wish that the history of the IMU should be written.

The bulk of the Union's papers, covering the years 1952-1982, were at that time stored in Zürich, at the Federal Institute of Technology. When it became apparent that the arrangement of these papers would not progress in Zürich, I offered the option of moving them to Finland. In Helsinki, I could assume the responsibility for their organization, and the University was willing to deposit the papers in its Central Archives. This plan was accepted by the IMU and Zürich, and the IMU material was dispatched to Helsinki.

The arrangement of the papers began in October 1994 and was completed in June 1996. A grant from the IMU made it possible to hire Tuulikki Mäkeläinen, long-time Office Secretary of the IMU, to do the work jointly with me. In our work, we were supported and advised by Eero Vallisaari, the Head of Archives of the University of Helsinki.

When it decided to move the archives to Helsinki in April 1994, the Executive Committee asked me to write the history of the IMU. After discussions during the Zürich ICM-1994, I answered affirmatively. Writing the history rendered my work with the archival material much more interesting than it would otherwise have been. Relevant for the archives was that the user's viewpoint, which was constantly in my mind, largely determined the way the papers were arranged into sections and smaller units.

This booklet contains a detailed list of the stored documents pertaining to the IMU. The purpose of its distribution to all members of the Union is to awaken and increase interest in the study of the historic past of the IMU. I am much obliged to Jacob Palis Jr., the Secretary of the Union, for his outspoken encouragement and support of the project which led to the [organized catalogued collection of the papers of the IMU](#).

Helsinki, October 1996

Olli Lehto

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## Deposit Contract

The historical archives of the International Mathematical Union (IMU, hereinafter referred to as "the Union") will be deposited in the Central Archives of the University of Helsinki under the following terms:

1. The material to be deposited comprises the historical archives of the Union as specified in the enclosed list.
2. The archives of the Union will be deposited until further notice.
3. The archives of the Union will be placed in the care of, and will be available at the Central Archives of the University of Helsinki.
4. The archives of the Union will be freely available for research, with the exception of confidential materials (marked with an asterisk on the enclosed list) that are accessible only with the written permission of the Secretary of the Union. The confidential materials will be freely available sixty years after the date thereof.
5. Materials in the archives of the Union can be lent only with the written permission of the Secretary of the Union.
6. Materials belonging to the historical archives of the Union but not included in the enclosed list may be added with the consent of the Central Archives of the University of Helsinki. A separate agreement must be

concluded with respect to the depositing of recent archival material.

7. This contract may be canceled on the initiative of either of the contracting parties.

This agreement has been drawn up in two identical copies, one for each of the contracting parties.

Helsinki, September 18, 1996

Jacob Palis Jr. Secretary International Mathematical Union

Eero Vallisaari Head of Archives University of Helsinki

# Catalogue of the papers of the IMU

June 1996

Below is a list of the papers of the IMU deposited at the Central Archives of the University of Helsinki, POB 3 (Fabianinkatu 33), FIN-00014 University of Helsinki. The [Deposit Contract](#) sets forth the conditions of their use.

The material is divided into numbered sections as follows:

1. [The old IMU](#)
2. [Foundation of the new IMU](#)
3. [General Assemblies](#)
4. [Executive Committees](#)
5. [\(National\) Adhering Organizations](#)
6. [Correspondence \(President and Secretary\)](#)
7. [International Congresses of Mathematicians](#)
8. [Program \(Consultative\) Committees](#)
9. [Fields Medals](#)
10. [Rolf Nevanlinna Prizes](#)
11. [Union Lectures](#)
12. [IMU Conferences](#)
13. [IMU Bulletins](#)
14. [International Commission on Mathematical Instruction](#)
15. [Exchange Commission](#)
16. [Commission on Development and Exchange](#)
17. [Travel Grants and Special Development Fund](#)
18. [History of Mathematics](#)
19. [World Directory of Mathematicians](#)
20. [Projects](#)
21. [Human rights](#)
22. [Finances](#)
23. [International Council of Scientific Unions](#)
24. [Other organizations](#)
25. [Tapes, films, photographs](#)

The papers of each section are stored in boxes designated by capital letters. In each box separate files are numbered (and provided with a title). Thus a file is identified by a three part code indicating the section, the box and the file.

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## 1. The old IMU

A. IMU Statutes 1919 and 1920 2. L'Enseignement mathématique, extracts 1920, 1924, 1929, 1931, 1932, 1934, 1936 3. American Mathematical Society, 1921- 1939 4. Koenigs (Gispert) 5. J. C. Fields (J. L. Synge) 6. W. H. Young (G. H. Hardy)

B. Young's correspondence (University of Liverpool): 1. 1920-1928 2. 1929 3. 1930-1932

C. International Research Council: 1. General Assemblies 1925 and 1926 2. Young's papers (University of Liverpool)

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## 2. Foundation of the new IMU

The use of the material in A 1 and A 3 requires permission from Brown University.

A. 1. Stone 1947-1948 (Brown University) 2. US Policy Committee 1948-1950 (Jessen) 3. Stone 1949-1950 (Brown University) 4. New York Convention 1950 5. Jessen 1951 6. ICSU-Unesco 1950- 1952 (Jessen) 7. Bulletin AMS 1948, 1950, 1951

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### **3. General Assemblies (GA)**

A. 1. 1st GA 1952 Rome 2. 2nd GA 1954 The Hague 3. 3rd GA 1958 St. Andrews 4. 4th GA 1962 Saltsjöbaden 5. 5th GA 1966 Dubna 6. 6th GA 1970 Menton

B. 1. 7th GA 1974 Harrison Hot Springs. 8th GA 1978 Otaniemi: 2. Meeting 3. Proposals 4. Delegates 5. Correspondence

C. 9th GA 1982 Warsaw: 1. December 1981 and GA 2. Lions and GA 3. Participants 4. Rules of procedure

D. 9th GA 1982 Warsaw: 1. New members 2. Slates 3. Project for report 4. Financial 5. Correspondence 1981-1983

E. 10th GA 1986 Oakland: 1. Meeting 2. Delegates 3. Nominations 4. Correspondence 5. Statutes 1950-1987

F. 11th GA Kobe (1-7): 1. Meeting 2. Delegates 3. ICMI 4. Elections 5-6 Correspondence 7. Printed material 8. 12th GA 1994 Lucerne.

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### **4. Executive Committees (EC)**

Each meeting forms a separate file. The numbers of a meeting and of its file are the same.

A. 1-17. Meetings (excl. 3) 1953-1962

B. 18-34. Meetings 1963-1974

C. 35-39. Meetings 1975-1978

D. 40-45. Meetings 1979-1982

E. 46-50. Meetings 1983-1986

F. 51-55. Meetings 1987-1990

G. 56-60. Meetings 1991-1994

H. Postal ballots: 1. 1979-1982 2. 1983-1986 3. 1987-1990

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### **5. (National) Adhering Organizations ((N)AO)**

A. 1950-1955: 1. General 2. Argentina 3. Australia 4. Austria 5. Belgium 6. Brazil 7. Canada 8. Cuba 9. Denmark 10. Eire 11. Finland 12. France 13. Germany 14. Great Britain 15. Greece 16. Iceland 17. India 18. Israel 19. Italy 20. Malaya-Singapore 21. Mexico 22. Netherlands 23. Norway 24. Pakistan 25. Peru 26. Portugal 27. Spain 28. Sweden 29. Switzerland 30. United States 31. Yugoslavia 32. Countries invited to join

B. 1. Lists of NAOs 1953-1970 2. NAO Circulars 1958-1964. 1956-1967: 3. Australia 4. Austria 5. Belgium 6. Brazil 7. Bulgaria 8. Canada 9. China (Peking) 10. China-Taiwan 11. Costa Rica 12. Cuba 13. Czechoslovakia 14. Denmark 15. East Germany 16. Finland 17. France 18. Germany 19. Great Britain 20.

## Greece

C. 1956-1967: 1. Hungary 2. Iceland 3. India 4. Ireland 5. Israel 6. Italy 7. Japan 8. Malaya-Singapore 9. Mexico 10. Netherlands 11. North Korea 12. Norway 13. Pakistan 14. Poland 15. Portugal 16. Romania 17. South Africa 18. South Korea 19. Spain 20. Sweden 21. Switzerland 22. Turkey 23. United States 24. USSR 25. Yugoslavia 26. Circulars 1972-1974

D. 1975-1982: 1. General 2. Countries A-C 3. Countries D-I

E. 1975-1982: 1. Countries J-P 2. Countries R-Y

F. 1983-1990: 1. Committees for Mathematics 2. Letters to all NAOs 3. Countries A-C 4. Countries D-I

G. 1983-1990: 1. Countries J-P 2. Countries R-Y

H. China: 1. 1972-1979 2. 1980-1981 3. 1982 4. 1983 5. 1984 6. 1985-1986

I. Ballots 1. 1967-1974 2. 1975-1978

J. Ballots 1. 1979-1988

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## 6. Correspondence (Presidents and Secretaries)

A. 1. Stone - Bompiani 1952-1955

B. Bompiani: 1. EC 1952 2. ICSU and IUTAM 1952 3-4. ICSU 1953 5. EC 1953-1955 6. ICSU 1954 7. ICSU 1955 8. Hopf 1954-1956 9. Hopf 1955-1956 10. Other Unions 1953-1956 11. International Mathematical News (IMN) 1952-1956

C. Three books containing lists of the letters sent by the Secretary in 1952-1953 (Bompiani), in 1953-1955 (Bompiani) and 1955-1958 (Bompiani and Eckmann), respectively

D. Eckmann: 1. EC 1956-1957 2. EC 1958 3. EC 1959 4. NAO Circulars 1956-1961 5. IMN 1956-1961 6. ICSU 1956 7. ICSU 1857-1958 8. ICSU 1959 9. ICSU 1960 10. EC 1960-1961 11. NAO Circulars 1961 12. ICSU Review 1961

E. Chandrasekharan: 1. Nevanlinna 1958-1962 2. Bombay-Zürich 1961-1963 3. EC 1961-1966 4. IMN 1961-1967 5. ICSU-Unesco 1962-1963 6. Bombay-Zürich 1964-1967

F. Frostman: 1. EC 1966-1967 2. de Rham 1966-1973 3. Cartan 1966-1972 4. Chandrasekharan 1966-1975

G. Lions: 1. Montgomery 1974-1979 2. EC 1974 3. EC 1975 4. EC 1976-1978 5. Miscellaneous 1975 6. EC Ballots

H. Lions: 1. EC 1976-1982 2. Miscellaneous 1976-1984 3. Carleson 1980-1982 4. Helsinki 1978-1986 4. Incoming 1981-1982 5. Helsinki (Theis) 1981-1988

I. Lehto: 1. EC 1983-1986 2. EC 1987-1990

J. Lehto: 1. Moser 1983-1986 2. Faddeev's presidency 3. Carleson 1983-1986 4. Miscellaneous 1983-1990 5. Faddeev 1984-1990 6. Moser 1987-1989 7. Canberra Circular & IMU 1986-1990

K. Lions - Palis: 1, 1991 2. 1992 3. 1993

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## 7. International Congresses of Mathematicians (ICM)

A. 1. 1897 Zürich 2. 1900 Paris 3. 1904 Heidelberg 4. 1908 Rome 5. 1912 Cambridge UK 6. 1920 Strasbourg 7. 1924 Toronto 8. 1928 Bologna 9. 1932 Zürich 10. 1936 Oslo

B. 1. 1950 Harvard 2. 1954 Amsterdam 3. 1958 Edinburgh 4. 1962 Stockholm 5. 1966 Moscow 1970 Nice. 1974 Vancouver: 7. Site Committee 8. Congress

C. 1978 Helsinki: 1. Site Committee 2. Organizing Committee 3. Personnel 4. Donations Financial

D. 1978 Helsinki: 1. Correspondence with members, A-L 2. Correspondence with members, M-Z 3. General Correspondence 4. Miscellaneous Correspondence

E. 1978 Helsinki: 1. Scientific program 2. One-hour speakers 3. Invited speakers in sections

F. 1978 Helsinki: 1. Speeches 2. Social program 3. Book exhibition 4. Proceedings

G. 1978 Helsinki: 1. Registration

H. 1978 Helsinki: 1. Printed material

I. 1978 Helsinki: 1. Films

J. 1978 Helsinki: Proceedings (2 volumes)

K. 1983 Warsaw: 1. Site Committee 2. ICM 82/83

L. 1986 Berkeley: 1. Site Committee 2. Correspondence with Helsinki Secretariat 3. General 4. Speeches

M. 1986 Berkeley: 1. Minutes of the Steering Committee 2. Correspondence Gleason - Mesirov 3. Printed material

N. 1990 Kyoto: 1. Site Committee 2. Correspondence 3. General 4. Scientific activities 5. Printed material

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## 8. Program (Consultative) Committees

Confidential files are marked with an asterisk (\*)

A. 1. ICM-62 ICM-66: \*2. (Nevanlinna) \*3. (Borel) ICM-70: \*4. (Hörmander) \*5. Panel (Borel)

B. ICM-74 Vancouver: 1. Preliminary Correspondence \*2. Correspondence (Hörmander) \*3. Panel proposals (Hörmander) \*4. Minutes (Hörmander) 5. Miscellaneous

C. ICM-78 Helsinki: 1. Meeting in 1976 and correspondence

D. ICM-78 Helsinki: \*(1-3) Correspondence and reports (Borel) \*(4-5) Correspondence (Lehto)

E. 1\* ICM-82

F. \*1. ICM-86 \*2. Panel (Borel)

G. \*1. ICM-90 (Kuiper)

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## 9. Fields Medals

Confidential files are marked with an asterisk (\*)

A. 1. Correspondence with Toronto 1932-1994 \*2. ICM-54 (H. Cartan) 3. ICM-62 4. Tata Prize 1964-1966 5.

ICM-70 (Hörmander et al) \*6. ICM-70 Reports \*7. ICM-70 (H. Cartan) 8. ICM-74

B. 1. ICM-78 \*2. ICM-78 (Montgomery)

C. 1. ICM-82 \*2. ICM-82 (Carleson)

D. 1. ICM-86 \*2. ICM-86 (Moser)

E. 1. ICM-90 \*2. ICM-90 (Faddeev)

F. 1. ICM-94 \*2. ICM-94 Candidates

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## 10. Rolf Nevanlinna Prizes

Confidential files are marked with an asterisk (\*)

A. 1. Correspondence 1981-1982 \*2. ICMs 1982 and 1986 3. ICM-94

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## 11. Union Lectures

A. 1. Lists 1971-1988 and published lectures 1971-1986 2. Correspondence 1971-1979 3. Correspondence 1980-1987 4. Arnold

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## 12. IMU Conferences

A. 1. Colloquia 1953-1955 2. Colloquia not sponsored 1952-1954

B. 1956: 1. Mexico 2. Bombay (Education) 3. Bombay (Zeta function) 1957: 4. Tübingen 5. Helsinki 6. Nice 1959: 7. Utrecht 8. Warsaw 9. Miscellaneous correspondence

C. 1960: 1. Jerusalem 2. Zürich 1961: 3. Prague 4. London 5. Portugal 1963: 6. Italy 7. Hungary 1964: 8. Manchester 9. Bombay 1965: 10. Madrid 11. Rome, Sussex, Bulgaria 12. Erevan, Canberra, Moscow 13. Not supported 1964-1965

D. 1967: 1. Varna, Bulgaria 2. Bucharest 3. Spain 4. Bonn 1968: 5. Bombay 6. Dubrovnik 7. Hungary 8. Warsaw 9. Jerusalem 1969: 10. Gothenburg 11. Dublin 12. Rio de Janeiro 13. Tokyo 14. Plans sur Bex, Switzerland 1971: 15. Cork, Ireland 16. Moscow 17. Prague

E. 1972: 1. Moscow 2. Israel 3. Strasbourg 4. Bulgaria 1973: 5. Hungary 6. Cambridge, UK 7. Bombay 8. Tokyo 9. Australia 1974: 10. Poland 11. Vancouver 1975: 12. Paris 13. Kyoto 14. Sweden 15. Marseille 16. Not supported

F. 1976: 1. Canberra 2. Bonn 3. Tbilisi 4. Prague 5. Not supported 1977: 6. Uppsala 7. Kyoto 8. Yugoslavia 9. Zürich 10. Rome 11. Sao Paulo 12. Ibadan, Nigeria 13. Hungary 14. Canberra 15. Prague 16. Leipzig 17. Not supported 18. Correspondence 1976-1977

G. 1978: 1. Bordeaux 2. Novosibirsk 1979: 3. Bombay 4. Edinburgh 5. Lausanne 6. Hungary 7. Moscow 8. Prague 9. Correspondence 1978-1979

H. 1980: 1. Zürich 2. Dakar, Senegal 3. Hong Kong 4. Penang, Malaysia 5. Brasilia (ELAM) 6. Poland 7. Moscow 8. Budapest 1981: 9. Rio de Janeiro 10. Brasilia (ELAM) 11. Sydney 12. Singapore 13. Spain 14. Marseille 15. Berlin 16. Prague 17. Moscow 18. Miscellaneous 1979-1982

I. 1982: 1. Saudi Arabia 2. Leningrad 3. Barcelona 4. Cameroon (CDE) 1983: 5. Leipzig 6. Berlin, DDR

(Euler) 7. Toronto (History) 8. Boulder, Colorado 1984: 9. Rio de Janeiro 10. Nigeria (CDE) 11. Moscow-Leningrad (Steklov) 12. Bombay 13. Venezuela (ELAM) 14. Calcutta 15. Lists 1983-84 1985: 16. Rio de Janeiro (ELAM) 17. Zürich (Weyl) 18. Kent State, Ohio 19. Brno, Czechoslovakia 20. Warsaw 21. Not supported 1985 1986: 22. Mexico 23. Marseille

J. 1987: 1. Cuba 2. Ivory Coast 3. Nigeria 4. Canberra 5. Seville 6. Joensuu, Finland 7. Baku, USSR 8. Prague (Equadiff) 9. Prague (Potential theory) 10. Burundi 1988: 11. Swansea, Wales 12. Montevideo 13. Santiago de Chile (ELAM) 14. Dakar, Senegal 15. Bombay

K. 1989: 1. Kent State, Ohio 2. Israel (Ring Theory) 3. Israel (Automorphic forms) 4. Israel (Piatetski-Shapiro) 5. Nantes 6. Canberra 7. Paris (Chandrasekharan) 8. Joensuu (Nevanlinna) 9. Prague (Equadiff) 10. Novosibirsk 11. Bucharest 12. Linz, Austria 1990: 13. Mexico 14. Burundi 15. Hong Kong 16. Singapore/Beijing 17. Bombay 18. Madras 19. Marseille

L. 1991: 1. Leipzig 2. Argentina (ELAM) 3. Prague 4. Barnaul, Altai, Russia 5. Minsk 6. Novosibirsk 7. Kenya 8. Not supported

M. 1992: 1. List of supported conferences 2. Linz 3. Beijing 4. Timisoara, Romania 5. Mons, Belgium 6. Paris (ECM 1) 7. Bombay 8. Venezuela 9. Nigeria 10. ICME Budapest 11. Not supported

N. 1993: 1. List of supported conferences 2. Mexico (ELAM) 3. Krasnoyarsk (Russia) 4. Timisoara, Romania 5. Havana, Cuba 6. Brazil 7. Benin 8. South Africa 9. Chile 10. Ascona, Switzerland 11. Hungary

O. 1994: 1. List of supported conferences 2. Czechoslovakia 3. Tokyo 4. Paris 5. Warwick, UK 6. Novosibirsk 7. South Korea

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## 13. IMU Bulletins

A. 1. International Mathematical News: 5-12 (1949-1950), 17-20, 23/24 (1952), 27-30 (1953), 33-36 (1954), 39-42 (1955), 45-79 (1956-1965), 81-86 (1965-1967), 89-93 (1968-1969), 95-99 (1970-1971) 2. IMU Bulletin: 1-38 (1971-1994)

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## 14. International Commission on Mathematical Instruction (ICMI)

A 1. 1952-1954 2. 1955-1957 3. 1958-1960 4. 1961-1966 B 1. 1967-1974 2. IMU Secretariat 1975 3. 1975-1979 4. 1980 C 1. 1981 2. 1982 D 1. 1983 2. 1984 3. 1985 E 1. 1986 2. 1987 3. 1988 4. 1989 5. 1990-1991 6. 1991-1993 (Palis) 7. ICME-84 Adelaide 8. ICME-88 Budapest

F. 1. ICMI Bulletins: 1-5 (1972-1975), 7-11 (1975-1978), 13-29 (1983-1990), 34 (1993) 2. Miscellaneous printed material

G. 1. Books: 1. ICMI Study Series 1985-1986 2. Studies in Mathematics Education (1984-1987)

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## 15. Exchange Commission

A. 1. 1952-1960 2. 1961-1974 3. 1974-1978 (Coleman's correspondence) 4. 1976-1978 5. Fellowships

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## 16. Commission on Development and Exchange (CDE)

A. 1. Reports and Minutes 1978-1990 Correspondence: 2. 1978-1979 3. 1980-1982 4. 1983-1985 5. 1986-1988 6. 1989-1990 7. 1991-1993

B. 1. Scientific activities 1978-1982 2. ICOMIDC 1983-1990 3. African Mathematical Union & PACOM 1985-1991 4. CIMPA & Unesco, Nice 1987

C. 1. Printed material: 1. African Mathematical Union 1986-1991 2. Mathematics and Development 1985-1988

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## 17. Travel Grants and Special Development Fund

A. 1. 1966 and 1970 2. Vancouver 1974 3. Helsinki 1978 4. Warsaw 1983 5. Special Development Fund 1975-1982

B. 1. Berkeley 1986 2. Kyoto 1990 3. Special Development Fund 1983-1990

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## 18. History of Mathematics

A. 1. 1972-1991 2. 1992-1994

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## 19. World Directory of Mathematicians (WDM)

A. 1. 1952-1954 2. 1955-1956 3. 1957-1959 4. 1960-1961 and 1965-1966

B. 1. 1976-1980 2. 1981-1982 3. 1983-1985 4. 1986-1987 5. 1988-1993

C. WDM: 1. 1958 2. 1961 3. 1966

D. WDM: 1. 1970 2. 1974 3. 1979

E. WDM: 1. 1982 2. 1986

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## 20. Projects

A. 1. Scientific publications 1952-1958 2. Mathematical Symbols 1952-1954 3. Computation Centre 1956-1960 4. IFIPS 1959-1960 5. Reviewing 1965-1972 6. Centres of Information (Correspondence of Frostman and Neumann) 1971-1973

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## 21. Human Rights

A. 1. 1975-1978 2. Massera 1978-1983 3. Soviet refuseniks 1981-1983 4. Free circulation of scientists Warsaw ICM 1982/83) 5. World Directory of Mathematicians 1982-1983 6. International Campaign 1984-1985 7. Free circulation of scientists and human rights 1980-1990 8. DDR 1986 9. Correspondence Moser-Sobolev 1986 10. Correspondence Moser-Clemens-Henkin 1986-1988 11. ICSU et al 1986-1990 12. Japan (ICM-90)

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## 22. Finances

A. 1. IMU Executive Committee Reports 1952-1970 2. Financial Reports 1952-1953 and 1958-1970 3. Correspondence 1951-1962 4. Cash Book 1956 5. Miscellaneous 1956-1965 (Eckmann) 5. Committee on Dues 1973-1974 6. Budget 1975-1978 7. Accounts 1977-1989

B. 1. Finances 1983-1990 (Accounts, Auditors' Reports etc.) 2. Office Secretary and the Finnish Ministry of Education 1982-1991 3. Switzerland 1983-1984 (Taxes and Schweizerische Kreditanstalt) 4. Chase Manhattan Bank 1983-1984

C. Dues 1975-1982: A 1. Argentina-Japan

D. Dues 1975-1982: A 1. Korea-Yugoslavia

E. Dues 1983-1990: A 1. Argentina-Ivory Coast

F. Dues 1983-1990: A 1. Japan-Yugoslavia

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## 23. International Council of Scientific Unions (ICSU)

A. General Assemblies: 1. Oslo 1955 2. Washington 1958 3. London 1961 4. Athens 1978 5. Amsterdam 1980 6. Cambridge, UK 1982 7. Ottawa 1984 8. Bern 1986 9. Beijing 1988 10. Sofia 1990 General Committees: 11. Warsaw 1983 12. Munich 1985 13. Rome 1987 14. Lisbon 1989

B. Executive Boards: 1. Amsterdam 1952 2. Strasbourg 1953 3. Naples 1954 4. Oslo 1955 5. BagnÀres-de-Bigerre 1956 6. Brussels 1957 7. Washington 1958 8. The Hague 1959 9. Lisbon 1960 10. London 1961

C. Correspondence ICSU-IMU: 1. 1950-1952 (Jessen) 2. 1961-1963 (CTS) 3. 1966-1968 4. 1974-1975 5. 1976 6. 1977 7. 1978 8. 1979

D. Correspondence ICSU-IMU: 1. 1980 2. 1981 3. 1982 4. 1983-1990

E. 1. IMU Reports to ICSU 1974-1990 and 1992-1993

F. Applications for subventions 1974-1983 2. CTS 1978 and 1983-1990 3. Financial 1981-1983 4. Costed 1980-1981 5. Costed 1982-1990 6. Cospar 1983-1990 7. Codata 1984-1989 8. IGBP 1988 9. IGBP 1989

G. 1. ICSU 1992

H. 1. ICSU 1993

I. 1. ICSU 1994 2. CTS 1992 3. IAU and IUGG 1992 4. Costed 1993 5. Costed 1994 6. CIMPA 1993 7. Cospar 1994

J. 1. Year Books and other printed material 1956-1991

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## 24. Other Organizations

A. 1. Unesco 1960-1990 2. Unesco 1992 3. IMU/IUTAM 1975-1982 4. International Society for the Interaction of Mechanics and Mathematics (ISIMM) 1975-1981 5. International Federation of Applied Mathematicians (IFAM) 1976 6. ICTP (Trieste) 1978-1988 7. International Center of Pure and Applied Mathematics (ICPAM) 1979 8. International Association of Mathematical Physics (IAMP) 1987-1990 9. Others

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## 25. Tapes, Films, Photographs

The use of A 1 requires permission from Brown University.

A. 1. Microfilms of Stone's papers 1947-1954 (Brown University) 2. Tape recordings of the General

Assemblies 1978 and 1982

B. 1. Tape recording of the 1978 General Assembly

C. 1. Tape recordings of the Executive Committee Meetings 1975-1978, except for the 37th (1977)

D. 1. Tape recordings of the Executive Committee Meetings 1978-1979

E. 1. Tape recordings of the Executive Committee Meetings 1980-1982

F. 1. Photographs

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# Meeting of the Executive Committee of IMU

The Executive Committee of IMU met on April 11-12, 1996, at the Courant Institute, New York, USA. The President of IMU, Professor David Mumford has invited the President of the Program Committee, Prof. Philip Griffiths, the Organizer Committee of ICM/98, Prof. Martin Groetschel, a member of ICMI, Prof. Jeremy Kilpatrick and the President of the European Math. Society (EMS), Prof. J.P.Bourguignon, as well as officials of the American Math. Society (AMS), to attend different parts of the Executive Committee of IMU meeting.

## Excerpts of this meeting:

1. [Program ``Turn of the Century''](#)
2. [Program Committee](#)
3. [Joint activities at ICM-98](#) (resolutions of the General Assembly,1994)
4. [Books/Journals for Russian Mathematicians](#)
5. [Joint Sections with AMS](#)
  - [Committee on Electronic Publishing](#)
  - [Technical Advisory Committee](#)
  - [letter sent to the committee members](#)
  - ["IMU Committee on Electronic Publishing" Terms of Reference](#)

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### 1. Program ``Turn of the Century''

A number of meetings, including possibly some special ones, for the year 2000 to be co-sponsored or supported by IMU, were discussed. Some of them corresponds to periodic activities and thus they have already been scheduled, like ICME and the EMS Congress.

The idea of having meetings in different regions of the world was considered, such as supporting a meeting in Latin America and possibly one in Asia and one in Africa. The IMU may also provide some financial support to other meetings/activities. J.P.Bourguignon also asked the EC to consider a project "The memory of mathematicians" to collect interesting private mathematical communications of main mathematicians. This would be jointly sponsored by IMU and EMS and possibly UNESCO. On the other hand, the EC asked Prof. Bourguignon about the possibility of planning a meeting in Europe, maybe Greece, on the History of Mathematics, to be jointly sponsored by IMU and EMS.

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### 2. Program Committee

Professor Phillip Griffiths, Chairman of the Program Committee, reported on it. He pointed out that there was already a very productive meeting of the PC that took place at the Institute for Advanced Study in Princeton, last December. The list of sections with topics initially proposed, as well as the number of talks assigned to each of them, were shown on the WWW server of ICM98. A number of suggestions by colleagues from different parts of the world were sent to Professor Griffiths concerning the sections. This helped the PC members to conclude the first stage of their work. The next meeting is set for March, 1997.

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### 3. Joint activities at ICM-98 (resolutions of the General Assembly,1994)

The Executive Committee of IMU had asked the Program Committee to take steps to implement Resolutions 3, 4 and 5 of the General Assembly, 1994. About that, Prof. Griffiths reported that the collaboration with other institutions like the Committee for the International Congress on Industrial and Applied Mathematics (CICIAM), Bernoulli Society, the future International Union of Computing Science and Informatics (IUCSI), the Mathematical Programming Society and others, are being pursued to jointly plan part of the sections,

specially with respect to applications.

Concerning ICMI, Professor Jeremy Kilpatrick attended part of the meeting and presented to the EC member some of the main activities of this IMU Commission. It was discussed, among other things, ICMI's view about its involvement in ICM 98. Prof. Mumford pointed out the necessity of closer cooperation between the Executive Committee of IMU and its Commissions. In particular, the PC of ICM98 should have ICMI and ICHM collaboration in planning the sections on teaching and popularization of mathematics and history of mathematics. The EC suggested that some members of the panel of these sections be proposed by ICMI and ICHM to the PC. It was concluded that only the talks programmed for the sections shall appear in the Proceedings of the Congress. In view of the above, Prof. Kilpatrick said he would discuss with ICMI whether they wish to continue to hold talks outside the official sections organized by the PC.

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#### **4. Books/Journals for Russian Mathematicians**

The Executive Committee decided to continue a contribution of US 5,000 to the a main mathematical library in Moscow through the Moscow Mathematical Society and similarly to the Steklov Institute or Euler Institute at St. Peterburg. This is a renewal of a previous grant in the same amount. On that occasion the gesture was appreciated by the Russian colleagues and the deliver of books/journals well accomplished.

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#### **5. Joint Sections with AMS**

A meeting of the American Mathematical Society took place in New York just after that of the Executive Committee of IMU. For the occasion, IMU and AMS programmed two joint sections on Saturday, April 13. The first one was a panel discussion entitled: "The activities of IMU and Plans for ICM/98" - Members of the Executive Committee, as well as Prof. P. Griffiths, as Program Chair for ICM/98 and J. Kilpatrick on behalf of ICMI, participated on it presenting an overview of some of the main activities of IMU and plans for the near future.

On Saturday afternoon, there was a section entitled: "International Forum: Perspectives on doing mathematics in the electronic age". A round table was formed by John Ewing, Martin Groetschel, Joachim Heinze, Andrew Odlyzko, followed by a discussion under the coordination of Lázsló Lovász. Since a number of relevant issues were raised during the meeting, like research journals, storage of information and others of continuous interest to mathematicians, an IMU committee on electronic publishing seemed appropriated. Professor David Mumford then invited L. Lovasz to chair such a committee, which is now formed by:

#### **Committee on Electronic Publishing**

Ned Calkin (Georgia Tech) [calkin@math.gatech.edu](mailto:calkin@math.gatech.edu)

John Franks (AMS) [john@math.nwu.edu](mailto:john@math.nwu.edu)

Martin Groetschel (ZIB, Berlin) [groetschel@zib.de](mailto:groetschel@zib.de)

Joachim Heinze (Springer-Verlag) [heinze@springer.de](mailto:heinze@springer.de)

Peter Michor [michor@esi.ac.at](mailto:michor@esi.ac.at)

Andrew Odlyzko (AT&T Reserch) [amo@research.att.com](mailto:amo@research.att.com)

John Price-Wilkin (University of Michigan) [jpwilkin@umich.edu](mailto:jpwilkin@umich.edu)

Hans Roosendaal (Elsevier) [h.roosendaal@elsevier.nl](mailto:h.roosendaal@elsevier.nl)

Laszlo Lovasz - Chair (Yale University) [lovasz@cs.yale.edu](mailto:lovasz@cs.yale.edu)

#### **Technical Advisory Committee**

Bernd Wegner [wegner@math.tu-berlin.de](mailto:wegner@math.tu-berlin.de)

Keith Dennis [dennis@MATH.AMS.ORG](mailto:dennis@MATH.AMS.ORG)

Larry Siebenmann [lcs@topo.math.u-psud.fr](mailto:lcs@topo.math.u-psud.fr)

**On this matter, the following letter was sent to the committee members:**

*Dear Colleagues,*

*Welcome to the IMU committee on electronic publishing. As you know, this committee was asked by the President of the International Mathematical Union, David Mumford, to study issues in connection with electronic publication and formulate proposals to the IMU that could facilitate a smoother transition into the electronic age. A copy of our letter of reference is enclosed.*

*The President of the IMU, appointed Martin Groetschel, Andrew Odlyzko and myself as chairman to this committee and asked us to extend the committee with more members as we see best. We are happy to report that we have been successful in securing the cooperation of a group of excellent people deeply involved in these difficult issues, and I thank you all for accepting this task. A list of committee members and their e-mail addresses is enclosed.*

*We have also asked some experts to give us technical advice on different issues that are bound to come up. It could well be that we'll have to approach other people for help as discussions develop.*

*I propose that we do our discussions by broadcasting our opinion to the whole committee.*

*My feeling is that we should take the questions posed by David Mumford in a broad sense, and, at least as a first round, I encourage committee members to raise issues concerning electronic publication in mathematics freely. On the other hand, we should keep in mind that this committee has the goal of coming up with concrete proposals to the IMU. So while I would not want to restrict the topics we consider too much, I would like to keep the discussion on the level of problems where the IMU (possibly together with other organizations) is in the position to do something.*

*I know of three issues that have come up in discussions so far, and which are concrete enough so that real progress is conceivable.*

*1) A document identifier system. There seem to be various attempts by libraries, publishers and others to develop such a system, and we should discuss if IMU should embrace any of them. In this respect, I'd like to ask our committee members who are librarians and publishers to bring us up to date.*

*2) A standardization of the front pages of preprints, together with an information system that makes use of this and thereby promotes its acceptance. Martin Groetschel is involved in a similar project in Germany and I'd like to ask him to inform us about it.*

*3) A proposal that the IMU maintains or finances some servers, where mathematicians from countries with insufficient Internet connection could submit their electronic preprints.*

*Looking forward to our cooperation,*

*Laszlo Lovasz*

## **"IMU COMMITTEE ON ELECTRONIC PUBLISHING"**

### **Terms of Reference**

The timely distribution of mathematical work (articles, preprints, books, scripts etc. ) is indispensable for mathematical research. It is of equal importance to guarantee quality, authenticity, longevity and retrievability. It is apparent that, at present, there is a transition from paper publication to publication in electronic form. New electronic journals appear and more and more preprint servers are set up. This development is not without problems.

How can papers be found efficiently in electronic archives? What is the actual state of an E-script (which may change throughout its life)? Who guarantees for its quality and authenticity? Has an electronic article been published in traditional form and where? Is the electronic version one has identical with the one somebody else references? Will the paper be archived and where? What happens with an electronic article if its "digital home" ceases to exist?

To address these and related issues, the Executive Committee of the International Mathematical Union sets up a Committee on Electronic Publishing. Its task is to write a report to the Executive Committee making suggestions how IMU could help solving the issues mentioned above.

IMU suggests addressing questions that can be solved in the very near future by the collaborative effort of mathematical societies, leading mathematical institutes, publishers and libraries with as little bureaucracy as possible. Among such questions are:

- Is it feasible to introduce an identification number for electronic mathematical articles (such as an ISBN number for a book)?
- Can an international automatic registration system for new articles (preprints and papers published in journals) be set up?
- Could there be a central or distributed archive (or a world wide directory system) for electronic preprints in mathematics?
- What are the chances to define and agree on a standard "first page", more precisely, on some kind of meta information, for every electronic article? This should be structured in such a way that information about the paper and its location can be retrieved easily.
- If this is possible, how can links to the reviewing journals and from the reviewing journals to the articles be made?
- How can the way of a paper from its preprint to its final journal publication form be tracked?
- Which versions of an article should libraries archive and which not?

IMU would not only like to see suggestions of possible solutions, IMU expects proposals for the implementation of solutions. IMU also asks the committee to consider the costs involved.

IMU is aware of the fact that, in several countries of the world, digital library projects are set up or in progress and that more and more publishers are entering the electronic publishing arena. The committee is asked to investigate these plans and use the findings for its proposal. The suggestions for electronic publishing in mathematics should also take the developments in other scientific fields into account.

# IMU Lectures

Since 1971, the Executive Committee of IMU has been inviting, from time to time, a distinguished and active mathematician, of high international standing, to give a set of four to five lectures, on important new developments in mathematics, to which the lecturer, directly or indirectly, has made a contribution and which deserve to be "surveyed" at some length, for the benefit of younger mathematicians as well as others.

IMU provides an stipend of US\$ 2000 to the lecturer upon receiving a manuscript corresponding to his talks. The present Executive Committee has also decided to consider the payment of the transportation of the lecturer when an institution of a developing country is involved.

The lectures should be given at mathematical centers and they will be published in the *L'Enseignement Mathématiques*.

# Guidelines for a Country that wish to become a member of IMU

A country interested in becoming a member of the International Mathematical Union, shall send to the Secretary of IMU, a sample of activities in mathematics, specially concerning research, as well as a sample of research papers published in international journals by the local mathematicians in the last 10 years or so. The Secretary of IMU shall then present the case to the Executive Committee, and, upon a recommendation of this board, the Adhering Organizations are consulted. The final decision depends on a majority vote of the members at a General Assembly or through a Postal Ballo.

# Report for 1996 of the International Mathematical Union and Commissions

Professor Jacob Palis  
Secretary

## Introduction

The International Mathematical Union was founded in its present form in 1951. The purpose of the Union is to promote international cooperation in mathematics, to support and assist the International Congress of Mathematicians and other international meetings and to encourage and support other international mathematical activities considered likely to contribute to the development of mathematical science in any of its aspects, pure, applied, or education. IMU has two commissions, the International Commission on Mathematical Instruction and the Commission on Development and Exchange. The International Commission on the History of Mathematics is a joint commission with the International Union of the History and Philosophy of Science.

- [Membership](#)
  - [Activities](#)
  - [Scientific Meetings](#)
  - [Education](#)
- 

## Membership

The members of IMU are countries. At the moment IMU has 62 members

In 1996 information concerning IMU can be found IMU-pages on the World Wide Web. The pages are located through URL: <http://elib.zib.de/IMU>

Gopher access is possible through the following address: <gopher://elib.zib.de/11imu>

The IMU server can be accessed via telnet as follows:

```
telnet elib.zib.de  
Login: imu  
no password required
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## Activities

Several of the present activities including the preparations for the ICM/98, the Special Development Fund, the IMU Archives, Procedures for Elections and the Program Turn of the Century are presented in pages 2-26 of this Bulletin.

Concerning the World Mathematical Year 2000, the IMU is publishing a Newsletter, whose present Editorial Board is formed by M. Chaleyat-Maurel, G. Tronel, A. Ashour, M. Hassan, A. Marzollo, M. Morimoto, M. Niss, R. Rebolledo, A. Sierpiska.

Following a resolution of the last General Assembly to celebrate the turn of the century, the IMU will publish a book with articles by a number of distinguished mathematicians on perspectives, achievements and open problems. The committee in charge of this project is formed by V. Arnold (Chairman), M. Atiyah, P. Lax and B. Mazur.

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## Scientific Meetings

Conferences supported by IMU - 1 9 9 6

INTERNATIONAL COLLOQUIUM ON "LIE GROUPS AND ERGODIC THEORY,  
held in Tata Inst. of Fundamental Research, India, from January 4-12, 1996.  
IMU representative: D. Mumford

RING THEORY CONFERENCE,  
held at the Univ. of Miskolc, Hungary, from July 15-20, 1996  
IMU Representative: James Arthur

INTERNATIONAL MATHEMATICAL CONFERENCE - Conference dedicated to 60th anniversary of  
academician V.G. Sprindzhuk's birth (1936-1987),  
held in Belarus Academy of Sciences/Belarus State University  
IMU Representative: V. Arnold

INTERNATIONAL CONFERENCE ON CONTEMPORARY PROBLEMS IN THE THEORY OF  
DYNAMICAL SYSTEMS,  
held in Nizhny Novgorod, Russia, from July 1-7, 1996.  
IMU Representative - V. Arnold

THE 2nd EUROPEAN CONGRESS OF MATHEMATICS,  
held in Budapest, July 21-27, 1996.  
IMU Representative - D. Mumford

WORKSHOP ON GEOMETRY AND DYNAMICAL SYSTEMS,  
held at PUC, Rio de Janeiro, Brazil, from July 31 to August 9, 1996.  
IMU Representative - J.Palis

8th PRAGUE TOPOLOGICAL SYMPOSIUM,  
held in Prague, Czech Rep., August 18-23, 1996.  
IMU Representative - A. Dold

INTERNATIONAL CONFERENCE ON NONLINEAR DIFFERENTIAL EQUATIONS AND  
APPLICATIONS,  
held in Tata Inst. of Fundamental Research, India, from August 19 - 23, 1996  
IMU Representative - J.L.Lions

INT. CONGRESS ON MATHEMATICAL EDUCATION (ICME 8) held in Sevilla, July 13 - , 1996  
IMU Representative - Jacob Palis

INTERNATIONAL CONFERENCE ON NUMBER THEORY,  
held in Hungary, from July 29 through August 2, 1996.  
The IMU representative was Prof. James Arthur and IMU gave its imprimatur to the meeting.

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## Education

International Commission on Mathematical Instruction - ICMI Report prepared by Mogens Niss, Secretary

### 1. Organization

The General Assembly of ICMI held its quadrennial session in conjunction with the 8th International Congress on Mathematical Education, ICME-8, held at Reina Mercedes campus of the Universidad de Sevilla, Spain, in July 1996. The General Assembly was held on 17th July 1996. The minutes of the Assembly are

published in the ICMI Bulletin No. 41, December, 1996, pp 3-9.

The Executive Committee had its second meeting at ICME-8 as well. The EC meeting was divided into three sessions, held on the 13th, 14th, and 19th July. Beside in meetings, the work in the EC is conducted by correspondence and electronic communication under the direction of the President and the Secretary.

In recent years, applications from a number of countries to be co-opted as non-IMU member states of ICMI have been received by the EC. At the end of 1996 ICMI decided, with the endorsement of the International Mathematical Union, to co-opt Thailand as a non-IMU member of ICMI. The Adhering Organization is the Mathematical Association of Thailand under the Patronage of His Majesty the King. Other applications were considered by the EC in 1996. Decisions are likely to be made in 1997.

It is part of ICMI's general policy to encourage member states to establish National Sub-Commissions of ICMI. In 1996 the EC was not informed of the establishment of new National Sub-Commissions.

## 2. ICMEs

The latest of the quadrennial International Congress on Mathematical Education, ICME-8, was held at Universidad de Sevilla, Reina Mercedes campus, 14-21 July. The congress had an attendance of about 3500 delegates from almost a hundred different countries. The program was very rich and intensive. Proceedings of the Congress are in preparation. A novel feature in the ICME series was instigated at ICME-8. A 10% solidarity tax was imposed on all registration fees in order to provide (partial) financial support of the attendance of about 250 delegates from about 55 different non-affluent countries. The amount thus generated was distributed by a specially appointed Grants Committee which worked incognito in order to minimize potential problems of pressure. The Grants Committee will publish a separate report of its work.

The next congress, ICME-9, will be held in Makuhari, Chiba, Japan, in 2000. Preliminary dates are 31 July to 7 August. An International Program Committee was appointed in 1996.

It is chaired by Professor Hiroshi Fujita, Meiji University, Tokyo, Japan. The IPC is expected to begin its work early in 1997.

## 3. ICMI Studies

The mounting and conducting of so-called ICMI studies on crucial themes and issues in mathematics education was continued in 1996. The ICMI studies are published by Kluwer Academic Publishers, Dordrecht, the Netherlands, under the general editorship of the President and the Secretary of ICMI.

The study on What is Research in Mathematics Education, and What Are Its Results?, the corresponding conference of which was held at the University of Maryland in College Park, USA, May 1994, is edited by Jeremy Kilpatrick and Anna Sierpiska. The volume is expected to appear in the beginning of 1997.

The study on Perspectives on the teaching of geometry for the 21st century, the corresponding study conference of which was held at Universita di Catania, Italy, September-October 1995, is edited by Vinicio Villani and Carmelo Mammana. The volume is expected to appear in the course of 1997.

Reports on the these studies, and on a previously completed one, Gender and Mathematics Education, were given at special ICMI study sessions at ICME-8, in Sevilla, July 1996.

The next study in the series is devoted to the theme The role of the history of mathematics in the teaching and learning of mathematics. An International Program Committee was appointed in 1996, with John Fauvel, the Open University, UK, and Jan van Maanen, the University of Groningen, the Netherlands as co-chairs. The study conference will be held in France, most probably at CIRM Luminy (Marseille) in April 1998, with Jean-Luc Dorier, Grenoble, France, in charge of the Local Organization.

The ICMI EC has also decided to mount a study on the Teaching and learning of mathematics at tertiary level. The IPC is expected to be appointed in beginning of 1997. The site of the corresponding study conference is under negotiation.

#### **4. Regional Conferences**

In 1996, 3-7 June, SEACME-7 (The 7th South East Asian Conference on Mathematical Education) was held in Hanoi (Vietnam) with 135 participants from 17 countries. A brief report of the conference, which was sponsored by ICMI as an ICMI Regional Meeting, was published in the ICMI Bulletin, No. 41, December 1996.

#### **5. Affiliated Study Groups**

ICMI continues to have four affiliated study groups, HPM (The International Study Group for the Relations Between the History and Pedagogy of Mathematics), IOWME (The International Organization of Women and Mathematics Education), and PME (The International Group for the Psychology of Learning Mathematics), and WFNMC (The World Federation of National Mathematical Competitions). Separate reports of their activities were published in the ICMI Bulletin Nos. 40 (HPM, PME, and WFNMC) and 41 (IOWME), 1996.

#### **6. The Solidarity Program**

In 1992 ICMI established a Solidarity Program to help the development of mathematics education in countries in which there is a need for it that justifies international assistance. The first stage in this program was the mounting of a Solidarity Fund based on private contributions by individuals, associations, etc. The Fund is to be activated to support concrete initiatives and activities that may foster solidarity in mathematics education between well- defined quarters in developed and less developed countries. The Solidarity Fund has received donations from various organizations and individuals in mathematics education for which it is most grateful. In 1996 no projects were supported by the Solidarity Fund. Although the total funds are not excessive, the ICMI EC would welcome applications concerning projects which are worthy of support in line with the general aims of the Fund.

# ICMI Bulletins

In 1996, ICMI Bulletin Nos. 40 and 41 were published under the editorship of the Secretary of ICMI. Furthermore, the ICMI Bulletin is available in the following electronic forms: In ASCII-format on direct request to the editor. On the World Wide Web, where it can be found under the following coordinates on the IMU-server, through URL:

[http://elib.zib.de/IMU/ICMI/bulletin/\[no.\]](http://elib.zib.de/IMU/ICMI/bulletin/[no.])

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[\*IMU e-mail\*](#)

# ICMI on WWW

Since the end of 1995, information concerning ICMI can be found on the ICMI-pages of the IMU-server on the World Wide Web. The pages are located through URL:

<http://elib.zib.de/IMU/ICMI>

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[\*IMU e-mail\*](#)

# Activities Involving Developing Countries

## Commission on Development and Exchanges - CDE

Report prepared by Pierre Bérard, Secretary

The Commission on Development and Exchanges (CDE) of the International Mathematical Union (IMU) continued to support mathematics and mathematicians from developing countries in 1996.

The program "Support to Individual Mathematicians" offers partial travel support to mathematicians who make an extended research visit in an advanced mathematical center which commits itself to supporting the local expenses. This program applies both to mathematicians from developing countries and to mathematicians from advanced countries who visit a mathematical center in a developing country.

The program "Support to Conferences" offers partial support for the academic activities of conferences organized in developing countries.

As in the past years, the CDE has received many applications and had to make a strict selection before awarding funding.

The CDE has also continued supporting research teams in Vietnam through a special grant awarded to Professor Pham who coordinates scientific cooperation with Vietnam. The CDE has also decided to cooperate with I.C.P.A.M. (Nice, France) and with I.C.T.P. (Trieste, Italy). The cooperation will be effective in 1997. Two special funding projects, one for Vietnam and one for Africa are being examined (to be effective hopefully in 1997)

A list of beneficiaries is given below. The activities of the CDE were made possible through funding or donations received from ICSU, IMU, Mathematical Society of Japan and Société Mathématique de France.

### CDE 1996 Support to Individual Mathematicians

Name / Field	ORIGIN	Research Visit / Year
Balachandran (control theory)	India	Univ. Tennessee (USA), Jul. 96
Osilike (nonlinear analysis)	Nigeria	ICTP (Italy), Apr. 96
Laouar (applied pde)	Algeria	ICTP (Italy), Oct. 96
Flores (calculus of variations)	Chile	ICTP (Italy), Oct. 96
Cortinas (K-theory)	Argentina	Bielefeld (Germany) and Paris (France), Oct. 96
Kabbaj (commutative algebra)	Marocco	U. Tennessee, Knoxville (USA), Jan 97
Elizondo (algebraic geometry)	Mexico	Tata Institute (India), Jan 97
Paycha (mathematical physics)	France	Univ. de Los Andes, Bogota (Colombia), Jul. 97
Moore (nonlinear analysis)	Nigeria	ICTP (Italy), Nov. 96
Umar (algebraic semi-groups)	Nigeria	Univ. Scotland, St Andrews (UK), Dec. 96
Zeine (applied pde, economy)	Mauritania	Nice (France), Oct. 96

### CDE 1996 Support to Conferences

Title of the Meeting/Conference	Country / Year
Algebra and its applications (Obada)	Cairo (Egypt), April 96
Intl. Conf. Functional and Global Analysis (Sy)	Quezon City (Philippines), Oct. 96
III Intl. Conf. Operational Research (Allende)	Habana (Cuba), Mar 97
Giraga, geometry and analysis (Ezin)	Porto Novo (Benin), Dec. 96
Intl. Conf. Dynamical Systems, Rangarajan	Bangalore (India), Jan 97
Workshop K-theory, Karoubi	Mendoza (Argentina), Aug. 96,
Ukraine DEBC-97, differential equations (Maistrenko)	Katsiveli (Ukraine), May 97

### CDE 1996 Support to Research Teams

<b>Country</b>	<b>Country/Year</b>
Vietnam (Pham)	Nice (France), Jun. 96

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[IMU e-mail](#)

# Other Scientific Activities

## International Commission on the History of Mathematics - ICHM

### Report prepared by Eberhard Knobloch, 1996

#### Past congresses to which the ICHM contributed:

Conference and workshop on Geometry and Physics 1900-1930, March 14-19, 1996. Jeremy Gray, United Kingdom, organized this international conference in Milton Keynes, UK. 28 lectures were given, among others by Jesper Luetzen, Skuli Sigurdsson, Karin Reich, ICHM members of Denmark, Iceland, and Germany.

The growth of mathematical knowledge, April 26-29, 1996 This international conference on the history and philosophy of mathematics was organized by Herbert Breger, Germany, and Emily Grosholz, USA, in State College, Pennsylvania, USA. Twelve historians of mathematics presented case studies which were commented on by philosophers of mathematics. The chairman of the ICHM was one of the speakers.

#### Descartes et le Moyen Age, June 4-7, 1996

Joel Biard, France, organized this international conference in Paris. Five lectures dealt with history of mathematics, especially those of Chikara Sasaki, Japanese member of the Executive Committee (EC) of the ICHM, and of the chairman of the ICHM.

#### Third International Conference on the Ancient Mathematics, July 30-August 3, 1996

Vassilis Karasmanis, Greece, organized this conference in Delphi, Greece. 24 lectures were given, among others by John L. Berggren, Sabetai Unguru, Jean Christianidis, ICHM members of Canada, Israel, Greece, and by the chairman of the ICHM.

#### Eighth International Conference on the History of Science in East Asia, August 26-31, 1996

It was organized by Kim Yong-woon, Korean member of the ICHM in Seoul, Korea. 29 lectures dealt with the history of mathematical sciences among others those of Karine Chemla and Li Di, ICHM members of France and China.

#### International Workshop on the History of Mathematics, November 3-9, 1996

It was organized by Kirsti Andersen, Vice-chairman of the ICHM, Denmark, Henk J.M. Bos, The Netherlands, and Menso Folkerts, treasurer of the ICHM, in Oberwolfach/Walke, Germany. Its subject was "Significant changes in our picture of mathematics' past - crucial results of four decades of research in the history of mathematics". Fifteen presentations and six comments were given, among others those by Ahmed Djebbar, Algerian member of the ICHM, and by Laura Toti Rigatelli, Italian member of the EC of the ICHM.

#### Experience and knowledge structures in Arabic and Latin sciences, December 16-17, 1996

Mohamed Abattouy, Morocco, organized this internationale conference in Berlin, Germany. It especially dealt with Arabic mathematics and astronomy. Menso Folkerts, treasurer of the ICHM, was one of the speakers.

#### The second European Honors Course in History of Mathematics, September 2-20, 1996

The course was concerned with the history of 19th century mathematics and took place in Palermo, Italy. It was organized by Aldo Brigaglia, Italy. Karin Reich, German member of the ICHM, was one of the lecturers. Some twenty advanced students of history of mathematics participated in the course.

### Future Congresses

#### XXth International Congress of History of Science, Liege (Belgium),, July 20-26, 1997

The congress will focus on 'Science, Technology, and Industry'. Two symposia are organized on behalf of the ICHM: 1. The heritage of A.P. Yushkevich, under the responsibility of K. Chemla, S. Demidov, E. Knobloch; 2. Formation of a research area and a scientific community: applied mathematics, under the responsibility of Giorgio Israel and Joe W. Dauben. The e-mail address of the Congress office reads as follows:

CHSTULG@VM1.ULG.AC.BE

The European Honors Course in History of Mathematics The third Honors Course of the SOKRATES Inter-university Cooperation Program "History of Mathematics" will be organized by Ivor Grattan-Guinness in Enfield, UK, July 14-August 1, 1997. Its subject will be Mathematics Education and its Institutions.

International Congress of Mathematicians, Berlin 1998 A Nominating Committee chaired by Karen Parshall, USA, elected five candidates for historical lectures which will be given on the occasion of the IMU.

## **Ongoing projects**

Revised ICHM Bibliography Albert Lewis, Canada, with the concurrence of the ICHM, will serve as Chief Editor of the CD-Rom edition of Joe W. Dauben's Selected Bibliography on History of Mathematics. The AMS will be the publisher. The contract will be submitted to the ICHM through its chairman.

### **ICHM Dictionary on History of Mathematics**

The Dictionary project edited by John Fauvel, UK, continues to progress. It is to be published by Oxford University Press.

### **ICHM Historiography project**

This project will be finished presumably in 1998. It is directed by Joe W. Dauben and Christoph J. Scriba who organized a meeting of the collaborators in Oberwolfach, Germany, in 1996. The aim is to describe the history of mathematics from the first historical writings on mathematics by the ancient Greeks and Chinese to the present.

### **Electronical availability of *Historia Mathematica***

The journal *Historia Mathematica*, the official publication of the ICHM, is available electronically from the International Digital Electronic Access Library (IDEAL). IDEAL can be visited through Academic Press's home page at <http://www.apnet.com>.

## **Addresses of the ICHM Chairman and Secretary:**

### **Chairman:**

Eberhard Knobloch, Technische Universitaet Berlin,  
Ernst-Reuter-Platz 7, 10587 Berlin, Germany  
Fax: 49-30-31425962  
e-mail: [ehkn0132@mailszrz.zrz.tu-berlin.de](mailto:ehkn0132@mailszrz.zrz.tu-berlin.de)

### **Secretary:**

Jeanne Peiffer, 6 rue des deux gares, F-75010 Paris, France  
Fax at CNRS (UPR 21): 33-1-45811647

# Publications

IMU published one bulletin in 1996. The 10th World Directory of Mathematicians came out during the summer of 1994.

ICMI published 2 [Bulletins](#), both supported by UNESCO grants. Other publications by ICMI were described above. ICHM also had several publications in 1996; they are described above in the topic of the [ICHM activities](#).

# Organizational Matters

The Executive Committee of IMU met once this year: on April 11-12, 1996, Courant Institute, New York, USA

# Vital Statistics

members (countries) - 62

10 (IMU ) + 4 (ICMI ) + 7 (CDE ) + 8 (ICHM) = 29 conferences supported

1 (IMU) + 2 (ICMI) = 3 bulletins; most conferences published their proceedings.

# Report About The Current State Of Preparations For The International Congress Of Mathematicians 1998

**Berlin, Germany, August 18-27, 1998**

Detailed information about the plans and the state of preparation can be found in the ICM'98 WWW-server (URL: <http://elib.zib.de/ICM98>) This report provides a short summary only.

The ICM'98 Organizing Committee provides an e-mail service distributing information about ICM'98 and the International Mathematical Union to all persons who have electronically preregistered for the INTERNATIONAL CONGRESS OF MATHEMATICIANS 1998 IN BERLIN. The ICM'98 WWW-server also offers an electronic preregistration form. A person without access to the World Wide Web can subscribe to the ICM98 circular letters, by sending an e-mail to

icm98@zib.de

writing

PRELIMINARY PREREGISTRATION  
into the SUBJECT line.

## 1. ICM'98 ORGANIZING COMMITTEE and VICM

The ICM'98 Organizing Committee is growing as the congress approaches. The Board of Directors consists of

President, M. Groetschel (ZIB and TU Berlin)

Vice President, M. Aigner (FU Berlin)

Honorary President, F. Hirzebruch (MPI Bonn)

Treasurer, J. Sprekels (WIAS and HU Berlin)

Secretary General, J. Winkler (TU Berlin)

**The ICM'98-server contains the list of all other colleagues currently involved in the organization.**

The International Congress is formally organized by the "Verein zur Durchfuehrung des International Congress of Mathematicians 1998" (VICM) that has been legally established and has the right to accept tax deductible donations etc. so that sponsors can take full advantage of their donations to the organization of ICM'98. VICM will make all legal contracts and has already done so. The Board of Directors of VICM is the same as that of the Organizing Committee. VICM membership dues will be used to support mathematicians from Eastern Europe and developing countries.

## 2. PROFESSIONAL CONGRESS ORGANIZATION COMPANY

The ICM'98 Organizing Committee has selected DER Congress as the congress organization company to support the ICM organization. DER Congress will, in particular, handle the registrations, run the accommodation service, and provide touristic advice. A contract has been signed.

## 3. SPONSORING AND FINANCE

Up to now government agencies, public foundations, and private companies have agreed to support the congress with a total amount well above 1.5 million DM. This amount is sufficient to organize the congress. Further sponsoring is sought (some negotiations look very promising) to offer additional activities, in particular, to involve the general (non-mathematical) public and to provide support for mathematicians from developing countries and the former Eastern Block.

## **4. LOCAL ARRANGEMENTS**

The opening ceremony and the afternoon of the first day will take place in the International Congress Center (ICC), all other parts of the congress (including local registration) will be in the Technische Universitaet. All rooms have been reserved and technical equipment is available. All Congress sites are ready for ICM'98.

Evening activities and events for the general public will also be in the building of the Academy of the Arts and the Urania building, see 8. below.

## **5. PUBLIC RELATIONS**

We are planning a major public relations campaign in Germany not only to publicize the International Congress but also to increase the public knowledge about mathematics and the public awareness of our subject. Several colleagues are participating in this project. Journalists have been approached and are willing to help us in this respect.

For instance, in the months before the congress we will publish a series of ICM-Specials in the Mitteilungen der Deutschen Mathematiker-Vereinigung (comparable to the AMS Notices) concentrating on four themes:

- a. Mathematics and the World
- b. Mathematics and Knowledge
- c. Mathematics viewed from the Outside
- d. The Future of Mathematics.

The issue on The Future of Mathematics will also be part of the official news release at the opening of the congress.

## **6. SPECIAL CONFERENCES AROUND ICM'98**

The list of these "satellite conferences" is growing. We maintain a special homepage in the ICM'98-server, where detailed information can be found.

## **7. SUPPORT OF MATHEMATICIANS FROM EASTERN EUROPE AND FROM DEVELOPING COUNTRIES**

The circular letters ICM-CL6 and ICM-CL8, these can also be found in the ICM'98-server, describe the procedures for application for support. For the young mathematicians selected by the IMU Special Development Fund, sufficient amounts of money for local support is available. To also support some (older) mathematicians from developing countries and a significant number of mathematicians from Eastern Europe further sponsors are actively approached.

## **8. CULTURAL PROGRAM, EVENTS FOR THE GENERAL PUBLIC**

We plan a number of cultural activities open to the general public during ICM'98.

### **URANIA**

Our major focus for Events for the General Public is the Urania in Berlin. The Urania foundation is a well-established organization, founded by, among others, Werner von Siemens, other industrialists, and famous scientists more than 100 years ago in order to popularize scientific research (in a broad sense). The Urania foundation is a private organization staging several talks on science every day in its own large building, also called Urania, in the center of Berlin, two subway stations away from the TU. The Urania foundation is able to survive without government funding through entrance fees and donations. The Urania foundation has a large number of members and dedicated followers. It is not rare that science talks have several hundred up to 1,000 persons in the audience. The Urania is closed during summer and we have rented the place for the time of the conference. The management of Urania is willing to support us by advertising the events that will take place during the conference through its well-established channels.

## **TALKS ABOUT MATHEMATICS AND ITS RELATIONS TO OTHER SUBJECTS**

Our idea is to have afternoon and evening talks intended on the one hand for participants of the conference, but on the other hand for the interested public (for instance highschool students) too. The talks will be labeled according to the audience that is addressed. We plan to have about one talk every day. A variety of aspects of mathematics and its relations to subjects such as philosophy, music, arts, physics etc. should be touched. We will charge an entrance fee for the general public. There will be talks in English and German.

## **VIDEOMATH FESTIVAL**

The circular letter ICM98-CL10 describes our plans for a VideoMath Festival. Briefly, short high-quality videos on mathematical topics will be combined into a film of about two hours length and shown in the movie theater of the Urania every day during the congress.

## **EXHIBITION MATHEMATIK ZUM ANFASSEN**

There will be an exhibition of mathematical models and related objects in the Urania. It will be called "Mathematik zum Anfassen". This exhibition of mathematical models is planned in cooperation with the Deutsches Museum in Munich.

We are planning to attract school classes to the exhibition and to the VideoMath shows; guides will show them around and explain the models and other objects.

Some financial support for these activities has been obtained, a little more would be good to be able to present everything we have in mind.

## **ART AND MUSIC EVENTS**

Two major events concerning "MATHEMATICS AND MUSIC" and "MATHEMATICS IN THE ARTS" are planned in cooperation with the BERLIN ACADEMY OF THE ARTS. The concepts for both events are in the final design stage and should be finished by the end of April 1997. The projects are very costly, but there seem to be hopes on the side of the Academy that money from the Lotto foundation can be obtained. It is impossible to describe the plans here in detail.

There will, for instance, be an art exhibition in the building of the Academy of Arts entitled "Ich zähle nicht" (I don't count) involving many well-known painters and other artists. Several performances of modern music as well as talks about mathematics and music and the arts will be presented. The events will take place in the Academy building and in the Urania.

In addition to modern music we will also offer something classic. The organizers have negotiated with the Deutsche Oper to stage Mozart's "Die Zauberflöte" (Magic Flute) on Sunday, August 23. We hold all tickets (almost 2000) for this performance. Those not sold by the end of April 1998 will be returned to the opera house for the general public.

## **9. ICM'98 PROGRAM**

One of the most important jobs for ICM98 has been finished. The ICM'98 program committee, appointed by IMU, has met in Berlin from March 7 to 9, 1997 and has selected all invited speakers. The invitations will be mailed out as soon as the Organizing Committee has received the addresses.

## **10. ANNOUNCEMENTS**

A so-called (printed) First Announcement of ICM'98 will be mailed out (by ordinary mail) in September 1997. We try to reach as many mathematicians as possible. Those who have preregistered for ICM'98 will receive the (very detailed) Second Announcement in early spring 1998.

## **11. PROCEEDINGS**

The ICM'98 Organizers will publish printed proceedings. Every participant will obtain a copy as part of the congress fee. The proceedings will also be electronically available through the electronic journal of the Deutsche Mathematiker-Vereinigung "Documenta Mathematica".

## 12. FEES

As things stand, at present, the congress fee will be DM 450.- (about \$ 265 at the exchange rate of April 10, 1997).

Berlin, April 10, 1997

Martin Groetschel  
President of the  
ICM'98 Organizing Committee

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[IMU e-mail](#)

# Report About The Current State Of Preparations For The Imu General Assembly 1998 Dresden, Germany, August 15 - 16, 1998

The General Assembly 1998 will be held in Dresden, August 15 - 16, on the weekend directly before the International Congress of Mathematicians in Berlin (ICM98).

"Dresden, the capital of the ``Freistaat Sachsen", one of the states of the Federal Republic of Germany, is one of the most beautiful cities of Germany. Dresden has been destroyed almost completely at the end of World War II. Extensive rebuilding projects are still going on to recover the beauty of the "old times" when Dresden was built under the rule of the Kings of Saxony."

The meeting will take place at Hotel Bellevue Grosse Meissner Strasse 15 D-01097 Dresden Phone: +49/351/8120-733 Fax: +49/351/8120-749

The hotel is located on the river Elbe, close to the point where one of the most famous views of Dresden has been painted by Canaletto in 1748.

Rooms have been reserved at the Hotel Bellevue, where the GA takes place, at DM 222.00 per night for single rooms and DM 249.00 for double rooms.

In addition, the organizers will also offer hotels with lower room rates. The procedures for room reservation will be announced with the invitation letters to the General Assembly. Travel hints will also be provided.

The schedule of the GA is roughly as follows:

- \* Friday, August 14, arrival of the delegates in Dresden.
- \* Saturday, August 15
  - o 10 am: Opening of the General Assembly
  - o 1 pm: one hour break for lunch
  - o 5 pm: boat tour on the river Elbe (by invitation of the State of Saxony)
- \* Sunday, August 16
  - o 8 am: Sessions of the Committees
    - + Credentials Committee
    - + Resolutions Committee
    - + Committee for Finance and Dues
    - + Nominating Committee
  - o 9:30 am: second session of the General Assembly
  - o 1 pm: Closing of the General Assembly
  - o 3 pm: guided tours of Dresden
  - o 8 pm: concert in the Unterkirche of the Frauenkirche which is currently under reconstruction
- \* Monday, August 17, transfer Dresden-Berlin (in form of a sight-seeing tour, see below).

The agenda will be dispatched by the IMU Executive Committee to the Adhering Organizations three months before the meeting. The procedure regarding proposals for the agenda is laid down in the By-Laws of IMU, paragraphs 2 and 3.

The transfer from Dresden to Berlin is planned for Monday, August 17. The fastest connection is by train, departing from Dresden every hour (the trip takes about 2 hours). The organizers will offer a coach tour from Dresden to Berlin to all delegates of the General Assembly. The coach will stop at several places of touristic interest. It is planned to visit the city of Meißen with its famous Porzellan Manufaktur, known for its Dresden china.

The ICM'98 Organizing Committee is responsible for the organization of the General Assembly. For questions, please contact the president of the Organizing Committee

Prof. Dr. Martin Groetschel  
Konrad-Zuse-Zentrum  
Takustr. 7  
D-14195 Berlin  
Germany  
E-mail: groetschel@zib.de  
Phone: +49/30/84185-210, Fax: +49/30/84185-269

In addition, a team of colleagues of the Technische Universität of Dresden will support the Organization.  
**Local responsibility rests with**

Prof. Dr. Volker Nollau  
Technische Universität Dresden  
Institut für Mathematische Stochastik  
Willersbau B 320  
D-01062 Dresden  
Germany  
E-mail: nollau@math.tu-dresden.de  
Phone: +49/351/463-2425, Fax: +49/351/463-7251

More about the General Assembly (travel advice, update of the program, etc.) can be found in the IMU WWW-server (URL: <http://elib.zib.de/IMU>), where also pictures, maps, etc. are shown. Please use this electronic service to find the most recent information about the GA 1998.

Berlin, April 10, 1997

Martin Groetschel  
President of the  
ICM'98 Organizing Committee

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[IMU e-mail](#)