

**Bulletins of the
International
Mathematical Union**



Bulletin of the IMU, No. 35 (1993)

Bulletin of the International Mathematical Union

Bulletins of the International Mathematical Union, No. 35, 42 pp. (1993)

Copyright: © 1993 International Mathematical Union

License: CC BY 4.0

DOI: [The DOI will be assigned later]

I M U

**Bulletin of the
International Mathematical Union**

Nº 35
December 1993

S E C R E T A R I A T

*Instituto de Matematica Pura e Aplicada - IMPA
Estrada Dona Castorina, 110
Rio de Janeiro - RJ
22460-320 - Brazil*

**35° Bulletin of the
International Mathematical Union**

C O N T E N T S

Executive Committee	.....	page 2
Members of the Union	.....	page 3
Meeting of the Executive Committee	.....	page 3
IMU General Assembly	.....	page 4
Appointment of delegations	.....	page 5
Procedure for the Election of the E.C. of IMU	.....	page 6
Procedure for the Election of the E.C. of ICMI	.....	page 7
Procedure for the Election of the E.C. of CDE	.....	page 7
Terms of Reference - ICMI	.....	page 8
Terms of Reference - CDE	.....	page 9
Conferences supported by IMU, 1993	.....	page 10
Colloquia Sponsored by IMU	.....	page 11
ICM/94	.....	page 12
Travel Grants for Young Mathematicians	.....	page 12
Special Development Fund	.....	page 12
IMU Lectures	.....	page 13
Instructions for becoming member of IMU	.....	page 13
Report on CDE Scientific Activities, 1993	.....	page 14
Report on ICMI Scientific Activities, 1993	.....	page 17
Report on ICHM Scientific Activities, 1993	.....	page 19
Statement of Income and Expenditure, 1993	.....	page 23
IMU Audited Accounts for 1993	.....	page 24
CDE Accounts for 1993	.....	page 37
ICMI Accounts for 1993	.....	page 38
Financial Report on the WDM, 1993	.....	page 41

INTERNATIONAL MATHEMATICAL UNION

Executive Committee

January 1, 1991–December 31, 1994

President:	Professor Jacques Louis Lions
Vice-Presidents:	Professor John Coates
	Professor David Mumford
Secretary:	Professor Jacob Palis
Members:	Professor James Arthur
	Professor Albrecht Dold
	Professor Hikosaburo Komatsu
	Professor László Lovász
	Professor Eduard Zehnder
Past President:	Professor Ludwig Faddeev

Members of the Union

The following countries were members of IMU as of January 1, 1993:

- I: Cameroon, Chile, Croatia, Cuba, Egypt, Greece, Hong Kong, Iceland, Iran, Ivory Coast, Democratic Republic of Korea, New Zealand, Nigeria, Norway, Philippines, Portugal, Romania, Saudi Arabia, Singapore, Slovenia, Turkey, Vietnam, Venezuela.
- II: Argentina, Austria, Bulgaria, Denmark, Finland, Georgia, Ireland, Mexico, Republic of Korea, South Africa, Yugoslavia.
- III: Australia, Belgium, Brazil, Czechoslovakia, Hungary, India, Israel, Netherlands, Poland, Spain, Sweden, Switzerland.
- IV: Canada, Italy.
- V: China, France, Federal Republic of Germany, Japan, United Kingdom, USA, USSR.

In postal ballots conducted among the Adhering Organizations of IMU, the Czech Republic and the Slovak Republic were admitted to the Union both in Group II as of January 1, 1994.

Meeting of the Executive Committee of IMU

The Executive Committee of IMU had its 58th Meeting on May 6-7, 1993, in ETH-Zentrum, Zürich, Switzerland.

The topics of the meeting covered:

- IMU Lectures
- ICM/94
- Travel Grants for young mathematicians to participate in the Congress
- General Assembly 94 - The General Assembly will be held in Lucern, on July 31 - August 1, 1994 and the Executive Committee will meet on Saturday, July 30, 1994.
- ICM/98 - Invitations to hold the ICM 98 has been received from Israel and Germany. After a long discussion about these proposals, the Site Committee has decided to recommend to the next General Assembly that the ICM 98 should take place in Germany, Berlin.

IMU General Assembly

The following letter has been sent to all Adhering Organizations of IMU, with a copy to the National Committees:

1. The Twelveth General Assembly of IMU will be held on July 31 - August 1, 1994, in Lucern, Switzerland.

2. According to the Statutes of the Union, each Adhering Organization "shall appoint and certify to the Secretary of the Union a delegation which shall have the number of votes corresponding to the Group in which it adheres, as follows:

Group:	I	II	III	IV	V
Number of votes:	1	2	3	4	5

provided that the number of delegates shall not exceed the corresponding number of votes. Any Adhering Organization which desires to ensure its full quota of representatives at meetings of the General Assembly by the appointment of alternates for its regularly named delegates may do so, provided that no such alternate shall be permitted to participate in the work of the General Assembly until he has been duly certified to the Secretary of the Union as assuming the powers and duties of the delegate he has been designated to replace. No person shall be a member of the delegation of more than one country. Voting by the General Assembly shall be by delegations, provided 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."

3. You are hereby requested to designate the delegation of your country. Please enter on the accompanying form the names of your delegates, with alternates if any, together with their addresses and return this form to the Secretariat by March 1, 1994.

4. Enclosed you will also find a hotel form for your delegate(s) and other material from Switzerland which should be given to the delegates to be filled and sent to Switzerland, as requested.

5. As provided for in the By-Laws of the Union, Adhering Organizations may propose business to be transacted at the General Assembly. Such proposals shall reach the Secretary at least four months before the meeting, i.e., not later than March 31, preferably before March 1, 1994.

The information material from Switzerland will be sent upon request to members who have not received it.

INTERNATIONAL MATHEMATICAL UNION

General Assembly

Lucerne, Switzerland, July 31 - August 1, 1994

Appointment of Delegations

You are hereby requested to designate the delegation of your country.

OBS: *The appointment of delegations is the responsibility of the Adhering Organization*

COUNTRY: _____ **GROUP OF ADHERENCE:** _____

ADHERING ORGANIZATION: _____

DELEGATES:

1. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

2. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

3. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

4. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

5. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

ALTERNATIVES:

1. **NAME:** _____ **E-MAIL:** _____

ADDRESS: _____ **FAX:** _____

This form should be filled in capital letters and should be returned, not later than March 1, 1994 to:

IMU Secretariat

IMPA - Instituto de Matemática Pura e Aplicada

Estrada Dona Castorina, 110 - Jardim Botânico

22460- Rio de Janeiro - RJ - BRASIL

FAX: (55) (21) 512-4115/4112 - E-MAIL: IMU@IMPA.BR

Procedure for the Election of the Executive Committee of IMU

1986

1. Not less than a year before the meeting of the G.A., the E.C. shall request proposals for the membership of the E.C. from the Committees for Mathematics, to be considered before the meeting of the E.C. in the spring before the Assembly.

The E.C. shall then draw up its own list of nominations and this shall be made known to delegates not later than two months before the General Assembly. The E.C. shall make certain that the candidate is willing to serve if elected.

2. Further nominations may be made in writing before the commencement of business on the second day of the meeting provided that they are signed by at least ten delegates and contain a statement by the candidate that he or she is willing to serve if elected.

Each nomination shall be for a specific office: President, Secretary, Vice-President or Member at large of the E.C.

3. On the first day of the meeting, the General Assembly shall appoint a Nominating Committee 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.

4. The Nominating Committee shall propose a slate from the nominations made under (1) and (2) above and shall make it known to the meeting.

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

5. The General Assembly shall then elect the new Executive by written ballots.

The voting slips shall contain all the names nominated under (1) and (2) (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".

Procedure 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 E.C. of IMU shall request proposals for the membership of the E.C. of ICMI from the Committees for Mathematics and will conduct 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.

Procedure 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 E.C. of IMU shall request proposals for the membership of CDE from the Committees for Mathematics and will conduct consultations with the existing CDE before proposing slates to the Nominating Committee.

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

International Commission on Mathematical Instruction

Terms of Reference

1986

1. The Commission shall consist of
 - (a) the members of an Executive Committee as specified in (2) below, elected by IMU, and
 - (b) one delegate from each member nation as specified in (4) below,
2. The Executive Committee consists of four officers, namely, President, two Vice-Presidents, and Secretary, and of three further members. Furthermore, the outgoing President of ICMI, the President and the Secretary of IMU, and the representative of IMU at CTS (ICSU) are members ex-officio of the E.C.
3. In all other respects the Commission shall make its own decisions as to its internal organization and rules of procedure.
4. Any Adhering Organization wishing to support or encourage the work of the Commission may create, or recognize, in agreement with its Committee for Mathematics, a Sub-Commission for ICMI to maintain liaison with the Commission in all matters pertinent to its affairs. The Adhering Organization in question shall designate one member of the said Sub-Commission, if created, to serve as a delegated member of ICMI as mentioned in (1).
5. The Commission shall be charged with the conduct of the activities of IMU, bearing on mathematical or scientific education and shall take the initiative in inaugurating appropriate programmes designed to further the sound development of mathematical education at all levels, and to secure public appreciation of its importance. In the pursuit of this objective, the Commission shall cooperate, to the extent it considers desirable with effective regional groups which may be formed spontaneously, within, or outside, its own structure.
6. The Commission may, with the approval of the Executive Committee of IMU, coopt, as members of ICMI, suitable chosen representatives of non-IMU countries, on an individual basis.
7. The budget of the Commission shall be submitted to the Executive Committee of IMU and the General Assembly, for approval, at such times as may be determined by agreement between the Commission and the Executive Committee of IMU.
8. The Commission shall file an annual report of its activities with the Executive Committee of IMU, and shall file a quadrennial report at each regular meeting of the General Assembly.

Commission on Development and Exchange

Terms of Reference

1986

1. The Commission shall consist of a Chairman and ten other members including the outgoing Chairman of CDE, the President and Secretary of IMU and the representative of IMU at COSTED (ICSU). The last four are members ex-officio of the CDE.
The rules for the election of the Commission are similar to those of the IMU E.C. and of the ICMI E.C., with the same Nominating Committee. The E.C. shall request proposals for the membership of CDE from the Committees for Mathematics and will conduct extensive consultations with the existing CDE before proposing slates to the Nominating Committee.
2. The Commission shall elect, from among its members, a Secretary who shall act also as its Treasurer, unless the Commission appoints another member for that purpose.
The Chairman, the Secretary (if any) and the Treasurer (if any) shall be designated as Officers of the Commission. The Commission may, in exceptional circumstances, elect the Chairman as Secretary or Treasurer, as the case may be, provided that the Commission has at least two different (elected) officers. The Commission shall make its own financial arrangements, subject to By-law 10 of the IMU.
3. Acting in accordance with the Statutes and By-laws of the Union, and the administrative policies of the Union, as determined by the Executive Committee, the Commission shall
 - (a) support and encourage the growth of Mathematics in developing countries and cooperate with appropriate bodies to that end;
 - (b) support the exchange of visits with member countries of the Union in which, for one reason or another (e.g. non-convertible currencies), such exchanges are not easy to arrange;
 - (c) advise and assist existing agencies working towards the same objective with due regard to the non-governmental and non-political nature of IMU and to its administrative policies, and without duplicating or prejudicing the work of other Commissions and Committees of IMU at points of common interest.
4. The Commission may accept gifts, legacies and subventions, subject to the Statutes of IMU, Section 16. The Commission shall make its own arrangements for the utilization of such funds for the activities mentioned in (3).
5. The Commission shall report annually to the Executive Committee on its activities and provide a financial statement.
6. The Commission shall file a quadrennial report at each regular meeting of the General Assembly.
The Commission shall come into existence on January 1, 1979, and the "Commission on Exchange" shall be dissolved from that date.

Activities of IMU in 1993, by Jacob Palis

Conferences Supported by IMU.

AMU (African Mathematical Union) Symposium on current Research Trends in Mathematics, Computer Science and Mathematical Physics, held in Porto-Novo, Rep.of Benin, Jan 22-25, 1993.

Granted: CHF 6.000

IMU Representative: Prof. M.S. Narasimhan (CDE) and P. Grisvard

Conference in Abstract Analysis, held in South Africa, April 14-23, 1993

Granted: CHF 5.000

IMU Representative: J. Arthur

V CLAPEM (V Latin American Congress on Probability and Mathematical Statistics), held in São Paulo, June 28 - July 3, 1993

Granted: CHF 11.000

IMU Representative: J.Palis

International Conference on Complex Analysis and the VIIth Romanian-Finnish Seminar in Timisoara, August 23-27, 1993

Granted: CHF 6.000

IMU Representativa: Olli Lehto

Second International Seminar on Approximation and Optimization, held in Havana, September - October 1, 1993.

Granted: CHF 6.000

IMU Representative: Prof. J.L.Lions

III Int. conference on Algebra - Kargapolov Conference held in Krasnoyarsk, August 23-28, 1993.

Granted: CHF 6,000

IMU Representative: Prof. J.Coates

XI ELAM, held in Mexico, August 15-27, 1993

Granted: CHF 11,000

IMU Representative: J.Palis

International Conference on Combinatorics, held in Kesztheley, Hungary, July 18-24, 1993

Granted: CHF 11,000

IMU Representative: Prof. L. Lovasz

IV Chilean Symposium of Mathematics, held in Santiago, Chile, September 7 - October 1, 1993

Granted: CHF 6,000

IMU Representative: Prof. J.Palis

Conference on Local Theory of Banach Spaces and Related Topics held at the Centro Stefano Franscini, in Ascona, Switzerland, September 5-11, 1993.

IMU Imprimatur (no financial support)

IMU Representative: Eduard Zehnder

Nevanlinna Colloquium, held at the Univ. of Michigan, June 1993.

IMU Imprimatur (no financial support)

IMU Representative: Prof. Olli Lehto

Colloquia Sponsored by IMU

1. The International Mathematical Union sponsors, or co-sponsors, “colloquia”; it does not sponsor or co-sponsor “institutes”. A colloquium is understood to mean a meeting, lasting about a week or more, to mainly discuss the results of recent research.
2. Any colloquium sponsored or co-sponsored by the Union is to be designated “an international colloquium”.
3. The co-sponsorship of the Union usually (though not always) implies a financial contribution by the Union of a few thousand Swiss francs. It is understood that such a contribution will be matched by at least an equal contribution from the organizers themselves.
4. The Union’s contribution is to be utilized for meeting the travel expenses of the invitees. The living expenses are to be met from other sources.
5. When the Union co-sponsors a colloquium, it nominates one or two members to the Organizing Committee of the Colloquium as its representatives. The Union’s nominee(s) should have a share in the preparation of the scientific program and in the selection of speakers. It is customary that one of the nominees of the Union is a member of the Executive Committee.
6. Immediately after the Colloquium is over, a financial statement giving the full budget of the Colloquium (showing the income from *all* sources, and the expenditure on all accounts) and a report on the scientific activities are to be sent by the Chairman of the Organizing Committee to the Secretary of the Union.
7. The Union’s deadline for receiving applications for colloquia is March 1 of the year preceeding the Colloquium. Even if the full picture of the Colloquium is not clear by that date, an application giving the topic, the names of the officers of the Organizing Committee, the main prospective speakers, the probable size of the Colloquium, and the probable size of the budget, together with the place where the Colloquium will be held, should be sent in.
8. The ICSU resolution on the free circulation of scientists should be observed: *Before the Symposia or meetings are arranged, an assurance in writing should be obtained from the organizers in the country concerned that visas will be granted to bona fide scientists if proper applications are made.*

International Congress of Mathematicians 1994

The next International Congress of Mathematicians will be held in Zurich, Switzerland, from August 3-11, 1994. The first announcement has been sent out in July 1993. For further information please contact the Organizing Committee: Prof. Christian Blatter, ICM/94 ETH-Zentrum, CH -8092 Zurich, Switzerland.

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-94, Zürich, Switzerland August 3-11, 1994. The grants are intended primarily for young mathematicians from developing countries (not necessarily members of IMU), but applications from countries with strict monetary regulations will also be considered.

The age-limit for the grantees is 35 years. The candidates should present evidence of research work on post-doctoral level (such as publications in journals or preprints), 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 plus a list of publications and preprints.

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

Special Development Fund

The Special Development Fund aids IMU to fulfill the important obligation of helping developing countries within the framework of mathematical research. The means of the Fund, which go un-reduced 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 accounts:

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 1991-1993, and 1994 up to April:

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

Mathematical Society of Japan	US\$ 18.881,11
Royal Society	US\$ 4.477,00
Ceremade, France	US\$ 3.404,86
CNPq, Brazil	US\$ 6.944,44

On behalf of IMU, the Executive Committee of IMU expresses its deep gratitude for these donations.

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 six lectures, on important new developments in mathematics to which the lecturer, directly or indirectly, has made a contribution. IMU provides an stipend of US\$ 2,000 to the lecturer upon receiving a manuscript corresponding to his talks, to be published in the *L'Enseignement Mathématique*. The present Executive Committee has also decided to consider the payment of the transportation of the lecturer when an institution from a developing country is involved. The EC is hopeful that more institutions around the world apply for the IMU Lectures.

Instructions for a Country that wish to become a member of IMU

The 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 your country mathematicians in the last 10 years or so. After that, the Secretary of IMU shall present the case to its Executive Committee, and after that, the final decision depends on the "Postal Ballot" that we have to send to all country members.

Commission on Development and Exchanges - CDE

Scientific Report 1993

Prepared by Pierre Bérard, Secretary

The purpose of CDE programmes is to partially support mathematical research activities in Developing Countries.

The CDE presently runs two programmes. The first programme offers partial travel support to visiting mathematicians (whose local expenses are supported by the host institution). The second programme offers partial support for academic activities of conferences organized in developing countries. The continuation of these programmes obviously depends very much on the funds the CDE receives.

In 1993 the CDE received applications as indicated :

Application for information on CDE programmes : 18

Application for support to individuals : 31

Application for support to conferences : 11

The total amount of funds granted by the CDE in 1993 to support mathematical activities is \$ 27,245.

The CDE spent \$ 370 for secretarial expenses during 1993 (local expenses of the Secretariat are supported by the Institut Fourier, Université Grenoble 1).

In 1993 the CDE received \$ 38,280 (IMU Academic Activities : \$ 10,000; ICSU : \$ 20,900; Mathematical Society of Japan : \$ 1,390; Association European Congress of Math. : \$ 540; Société Mathématique de France : \$ 950; UNESCO - 92 grant second payment - : \$ 800; IMU General Expenses : \$ 3,700). The general policy of the CDE is to save on each year funds in order to compensate for variations in funding.

Support to Individual Mathematicians

One of CDE's schemes is to offer (partial) travel support to mathematicians who make a (preferably extended) research visit to an advanced center which commits itself to supporting the local expenses. This programme concerns either mathematicians from developing countries, or mathematicians from advanced countries who visit an advanced center in a developing country. South-South collaboration is strongly encouraged.

As there are numerous applications, the selection of grantees is very strict; all of them are active mathematicians in their research field (recent PhD's, junior or senior mathematicians). Very often the grantees take the opportunity of their research visit to attend international conferences. Grantees (are to) provide a scientific report upon completion of their research visit.

The following mathematicians have been supported by the CDE on its 1993 programme.

- Doctor Y. BOZHKOV is a young PhD (Oxford and Sofia) who works in gauge field theory and topology. He made an extended research visit to Brazil (Mathematics Institute of the University of Campinas) under a Brazilian post-doctoral fellowship.
- Doctor Z. TANG is a young Chinese mathematician (Suzhou University) who works in algebraic geometry. He made a 6-month research visit to Köln (Germany) under a von Humbolt fellowship.
- Professor H. LU is a senior mathematician from China (University of Science and Technology, Hefei, Anhui). He works in number theory (modular forms and cryptography). He visited Purdue University (USA) for two months in the spring of 93.
- Professor A. STARKOV is a junior mathematician from Moscow State University (Russia). He is a specialist of Lie group theory (rigidity of lattices) and dynamical systems. He made a three-month visit to the TATA Institute for Fundamental Research in Bombay (India).
- Professor D. WANG is a senior mathematician from Tsinghua University in Beijing (PR. China). Professor Wang is a specialist of differential equations (normal forms, bifurcations). He made a one month visit to the Free University of the Netherlands and a shorter visit to Bratislava where he was also an invited speaker at an International Conference on Differential Equations.
- Doctor V. MURUGANANDAM is a young mathematician from Pondicherry University (India). He works in representation theory and harmonic analysis. He made a three-month visit to France (under a French fellowship) where he visited the Universities of Poitiers and Nancy.
- Professor M. PASSARE is a junior mathematician from the Ecole Polytechnique Royale, Stockholm (Sweden). He is a specialist of several complex variables. He made a one-month visit to the University of Buenos Aires (Argentina).
- Professor D. SANGARE is a senior mathematician from the University of Abidjan (Ivory Coast). He works in commutative algebra (filtration theory). He made a one-month visit to France (University of Caen) and also attended an International Algebra Conference in Marseille.
- Professor A. BENHISSI is a young mathematician from the University of Monastir (Tunisia) working in algebra. He made a one-month visit to the University of Marseille (France).

Support to Conferences

Another CDE scheme is to support conferences which are organized in a developing country and which have a regional scope. The CDE receives many applications to this programme and the selection is again very strict. The CDE offers (partial) support to academic activities only; organizers (are to) provide both a scientific and a financial report upon completion of the conference. The following conferences have been supported by the CDE within its 1993 programme.

- Workshop in Arithmetic Geometry (Nankai, China, May 24–29, 1993), organized by Prof. A. Assadi and K. Feng.
- International Conference and Advanced Workshop on Arithmetic Geometry (Cairo, Egypt, Sept. 4-15, 1993), organized by Prof. Dabbour.

- Both these conferences are part of a general programme : Programme for International Cooperation in Mathematics and its Applications; Project Research and Advanced Study in Geometry. In 91-92, the programme organized the following activities : International Workshop in Geometry and Algebra in Isfahan (Iran, May 92); International Workshop in Geometry and Arithmetic (Antalya, Turkey Aug. 92); Advanced Workshop in Arithmetic Algebraic Geometry at ICTP (Sept. 92).
- Harmonic Analysis and Operator Theory, an International Conference in honour of M. Cotlar (Jan. 3-8, 1994, Caracas, Venezuela) organized by the Mathematical Society of Venezuela.
- International Conference on Numerical Analysis and Optimization (15-17 Dec. 93, Rabat, Morocco), organized by Professor Bennani.
- Workshop-School on Vector Bundles on Curves - New directions (13-26 December, 1993, Tata Institute, Bombay, India), organized by Professors Ramadas, Ramanathan and Seshadri.
- AMU Symposium on Current Research Trends in Mathematics, Computer Science and Mathematical Physics (17-24 January 1994, Ibadan, Nigeria), organized by the African Mathematical Union.

Support to Teams

Apart from the above regular programmes, the CDE is trying to identify strong research teams in Developing Countries in order to offer support for academic activities (support to research visits abroad, partial support of visiting scientists, library support, etc). Two teams have so far been identified. The first one has received support for the period 90-92; the CDE committed itself to supporting the second team for the period 92-94. Whether the CDE can commit itself for a given period of time depends on the funds available (the CDE also takes into account the local situation as of funding of mathematical research). The following two teams have been supported.

- Prof. Tirao (Cordoba, Argentina; Representation theory of Lie groups) (92 support, paid early 93)
- Le Van Thanh (Hanoi, Vietnam; Singularities and topology) (funds committed by the CDE for 94 support)

Comments

This report does not include funds committed in 1992 for grants paid in 1993 (they appeared in the 1992 report).

International Commission on Mathematical Instruction - ICMI

Report prepared by Morgen Niss, Secretary

Organization

In 1993, a number of new member states became members of IMU and consequently of ICMI. There are Croatia, Georgia, Slovenia. The place of the former Soviet Union has been granted to Russia. As to former Czechoslovakia, both the Czech Republic and the Slovak Republic have been proposed as new members of IMU from January 1, 1994.

In 1993 ICMI informed the National Committees of Mathematics and Adhering Organizations of member states about the IMU General Assembly Resolution 5 (Kobe, 1990). According to this resolution member states are asked to review their national representations on ICMI under the perspective that normally national representatives should not be asked to serve for more than two consecutive four-year terms. As a result, main Adhering Organizations have decided to appoint new national representatives. This will be reflected in the list to be published in the June 1994 issue of the ICMI Bulletin.

The Executive Committee of ICMI met in Hoor, Sweden, on 9–10 October, 1993. The International Council of Scientific Unions, ICSU, has decided not to operate with a Committee on the Teaching of Science, CTS, in the future, since one of the ex-officio members of the Executive Committee of ICMI is IMU's representative to CTS/ICSU. This will the organizational structure of ICMI. It is, however, not yet clear what the exact effect will be.

ICMI continues to have three 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). It has been decided that the World Federation of National Mathematical Competitions might become, if appropriate modifications of its status are made, an affiliated study group.

ICME-8 (International Congress on Mathematical Education)

The planning of ICME-8, to be held in Sevilla (Spain) in July 1996, is progressing well. The International Programme Committee - chaired by Professor Claudi Alsina, Barcelona, has produced preliminary drafts of the structure of the congress programme.

The EC has not yet received any formal bids to host **ICME-9** in the year 2000. At least one country is known to be preparing a bid to be submitted in 1994.

ICMI Studies

The mouting and conducting of the so-called ICMI studies on crucial themes and issues in mathematics education was intensified in 1993. The study conference on *Gender and Mathematics Education* was held in Hoor, Sweden, 7-12 October, 1993 with 75 participants from 23 different countries. The conference - organized by an International Programme Committee, chaired by Professor Gila Hanna, OISE, Univ. of Toronto, Canada, was based on a Discussion Document published officially in *l'Enseignement mathématique* 38, fasc. 1-2, janvier-juin 1992, pp 189-98. The first outcome of the conference will be a proceedings volume of about 400 pages.

The next study in the series will be *What is Research in Mathematics Education and What are Its Results*. The International Programme Committee is chaired jointly by Professor Jeremy Kilpatrick and Anna Sierpiska. A Discussion Document was published in *l'Enseignement mathématique* 39, fasc. 1-2 janvier-juin 1993, pp 179-86, and in the ICMI Bulletin, No. 33, December 1992. The study conference will be held in Washington DC (USA) in May 1994. It is ICMI's intention to present the main outcomes of this study as the ICMI lectures in the International Congress of Mathematicians, Zurich, August 1994.

The first steps towards mounting a study on *New perspectives on the teaching of geometry of the 21th century* were taken in 1993. The appointment of the International Programme Committee has begun in 1993. It will be chaired by Professor Vinicio Villani, Pisa (Italy). The study conference will be held in Catania, Sicily (Italy) in 1995.

Regional Conferences

Financial support was given by ICMI to SEACME 6 (the 6th South East Asian Conference on Mathematical Education) which was held in Surabaya (Indonesia), 7-11 June, 1993. The number of participants were almost 450 from 18 different countries, mostly from South East, Asia.

The Executive Committee further decided to sponsor - and financially support - a regional conference to be held in Shanghai 16-20 August 1994. The theme of the conference will be *Teaching Preparation in Mathematic*). The Executive Committee has also agreed to sponsor conference on regional collaboration to be held in Australia 1995.

New initiatives

In connection with ICME-7 in Québec (Canada), August 1992, ICMI decided - on the suggestion of its President, Miguel de Guzmán - to mount a Solidarity Programme to help developing mathematics education in countries in which there is a need for it.

As a first step in mounting this programme, a Solidarity Fund based on private contributions by individuals, associations etc, was established. 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. For the time being, the Fund will be in charge of a committee chaired by Prof. J.P. Kahane, Past President of ICMI. By the end of 1993, the Solidarity Fund contained a total of almost US\$ 21.000.

In 1993, the first project under the auspices of the Solidarity Programme was carried out. With a generous financial support (US\$ 1,500) of the Federación Española de Sociedades de Profesores de Matematica, Professors Miguel de Guzmán and Mariano Martínez gave courses of two weeks in Managua (Nicaragua), in January-February, 1993.

In Zürich, Switzerland, August 1994, the E.C. is planning five ICMI lectures to be given at the Congress.

ICMI Bulletins

In 1993 ICMI Bulletins No. 34 (June) and 35 (December), were published under the editorship of the Secretary of ICMI.

International Commission on History of Mathematics- ICHM

Report prepared by Joseph Dauben, 1993

The major undertaking of the International Commission on History of mathematics in 1993, was planning a number of special symposia in connection with the program for the XIXth International Congress of History of Science, held in Zaragoza, Spain, from August 22-29, 1993. In addition to the efforts of the Congress organizers, led by Professor Mariano Hormigón, Chairman of the Organizing Committee, and Professor Jean Dhombres, Chairman of the Programme Committee, the Congress program included more than twenty different symposia devoted specifically to history of mathematics, with topics ranging from “ethnomathematics” to the “history of model theory”. The ICHM organized five separate symposia of its own.

During the Congress, the ICHM Executive committee met on Tuesday, August 24, during a luncheon meeting at which the election of new officers for the Commission’s Executive Committee was announced. On Thursday, August 26, the Commission held an Open Meeting for all historians of mathematics attending the Congress, during which the 1993 K.O. May Medal for Outstanding Contributions to the History of Mathematics was awarded. On Friday, August 27, there was an ICHM Cocktail and Tappas Party, sponsored by Academic Press, celebrating the 20th Anniversary of *Historia Mathematica*.

ICHM symposia sponsored during the Zaragoza Congress

- “Historiography of History of Mathematics” (4 sessions)
Organized by Joseph Dauben and Christoph Scriba
- “Mathematics in Asia” (3 sessions)
Organized by Karine Chemla, Liu Dun and Chikara Sasaki
- “Arts and Mathematics” (2 sessions)
Organized by Kirsti Andersen and Eberhard Knobloch
- “Logics and Foundations of Mathematics, 1885–1905” (3 sessions)
Organized by Ivor Grattan-Guinness and F.Rodríguez-Consuegra
- “National Schools in the 19th and 20th Centuries” (3 sessions)
Organized by Serguei Demidov and Mariano Hormigón

Celebration in honor of 20 years of *Historia Mathematica*

In 1994 *Historia Mathematica* began the publication of its 20th volume, and this anniversary was celebrated in appropriate style during the Zaragoza Congress thanks to the generous support of its publisher, Academic Press.

May Medal struck in Toronto

The International Commission, in conjunction with the May Committee at the Univ. of Toronto, commissioned a bronze medal in honor of K.O. May which was designed in 1993 and struck by the Canadian sculptor Salius Jaskus. The first of the new medals was engraved and presented, officially, to Dirk J. Struik during a session devoted to History of Mathematics organized by Judith V. Grabiner and Karen Parshall during last year’s annual meeting of the American Association for the Advancement of Science, in Boston, February 13, 1993. A second medal (the first prize was jointly awarded to Professors Struik and Youschkevitch), was presented to A.P. Youschkevitch during a meeting at the Institute for History of Science and Technology in Moscow last spring.

Second Kenneth O. May Prize awarded in Zaragoza

The International Commission on History of Mathematics awarded the second Kenneth O. May Prize during the XIXth International Congress of History of Science in Zaragoza, Spain, during the open plenary meeting of the Commission on August 26, 1993. The Prize was given jointly to Professor Dr. Christoph J. Scriba of the University of Hamburg, and to Professor Dr. Hans Wussing of the University of Leipzig. Both Professors Scriba and Wussing are well-known to historians of mathematics for their many publications and scholarly contributions to the international community of historians of mathematics.

The first Kenneth O. May Prize was presented in Hamburg during ICHS-1989. The award, to commemorate the first Chairman of the Commission and founding editor of *Historia Mathematica*, is intended to acknowledge significant contributions to the history of mathematics.

The Executive Committee of the Commission has established an Endowment Fund to help support the Kenneth O. May Prize. The May Prize is supported by the Institute for the History and Philosophy of Science and Technology, University of Toronto; by the International Commission on the History of Mathematics, and by individual contributions to the ICHM May Prize Fund.

1994: A change of guard

At the end of 1993, both the editorship of the Commission's journal, *Historia Mathematica*, as well as the composition of the ICHM Executive Committee, were changed. After eight years of service as Editor, Eberhard Knobloch gave up his position to begin a four-year term as the newly-elected Chairman of the Commission. The new editors of *Historia Mathematica* are David Rowe (Main) and Karen Parshall (Virginia). The newly-elected Executive Committee, to serve four years, includes:

Chairman: Eberhard Knobloch (Germany)
Vice-chair: Kirsti Andersen (Denmark)
Secretary: Jeanne Peiffer (France)
Treasurer: Menso Folkerts (Germany)
Members: Ubiratan d'Ambrosio (Brazil)
John Fauvel (England)
Giorgio Israel (Italy)
Liu Dun (China)
Chikara Sasaki (Japan)
Evgeny A. Zaitsev (Russia)

Positions not open for election in 1993:

IMU members: Harold Edwards (USA)
Jean Dhombres (France)
Ex-Officio: Christoph Scriba (Germany)
Joseph Dauben (USA)
David Rowe (Germany)

International Congress of Mathematicians - Zürich, 1994

With the cooperation of the Congress Program Committee, the ICHM has organized a special historical symposium on "The History of Congresses from Zürich to Zürich". A Committee chaired by Erwin Neuenschwander (and comprised of Umberto Bottazzini, Serguei Demidov, and Ivor Grattan-Guinness) is overseeing the planning of this symposium.

New and continuing project

World Mathematical Year 2,000

The International Mathematical Union has declared the Year 2,000 as World Mathematical Year. The first aim of WMY 2,000 is to consider the “great challenges of the 21th century”. In coordination with the next International Congress of Mathematicians to be held in Zürich in 1994, the Commission has already undertaken to organize an historical Symposium (described above) which will survey the history of International Congresses from Zürich to Zürich, looking ahead to the first century of the next millenium.

The second aim of WMY 2,000 is to consider “Mathematics, Keys for Development”. Here the International Commission on History of Mathematics hopes to support various projects and possible international meetings at which the connections between pure and applied mathematics in particular may be explored in their historical context, especially in countries that are not currently members of the IMU (another of the goals emphasized by WMY 2,000). The question of increasing the availability and exchange of information related to the history of mathematics among colleagues everywhere, including schools, colleges, universitites, research institute, etc, is a continuing concern of the Commission in connection with its own international activities.

The Commission hopes to contribute substantially as well to the third aim of WMY 2,000, namely to the “image of mathematics”. One way to account for the “systematic presence” of mathematics in the “Information Society” (another interest of WMY 2,000) is through the history of mathematics, which can effectively demonstrate the significance of mathematics in cross-cultural ways in the widest possible variety of different contesxt. Again, local meetings, international symposia, special exhibitions and long-range publications efforts can all help to achieve the goal of creating a higher public awareness of mathematics and the crucial role it has played in world history.

Two projects of the ICHM are especially relevant here. One is the maintenance of a portrait archive of slides and photographs of mathematicians and historians of mathematics. The second is the production of a “Historiography of the History of Mathematics”. At present, nearly forty colleagues from all over the world are collaborating in this effort to describe the history of history of mathematics from the first historical writings on mathematics by the ancient Greeks and Chinese, to the present.

New Edition of the ICHM World Directory

Periodically, the Commission updates its *World Directory of Historians of Mathematics*, the last edition of which was published as a Supplement and make available in time for the Berkeley International Congress of History of Science in 1985. Work on the new edition is underway as the old guide is now quite out of date. The new edition will include more than 1000 newly-verified names and addresses with complet institutional affiliation, telephone, e-mail and fax numbers (as available).

ICHM data base

In conjunction with the new *World Directory*, the International Commission is also compiling a database containing information about historians of mathematics around the world. This will

include both biographical and bibliographic information, as well as photographs for individual historians of mathematics (to constitute, eventually, a sort of Poggendorff's for history of mathematics).

Photo archive

The ICHM has recently entered into an agreement with the Karl-Sudhoff-Institut at Leipzig University, to begin work on an ICHM catalogue of photographs of mathematicians, to complement the collection already housed at the Mathematisches Forschungsinstitut in Oberwolfach, Germany. As reported in the 1992 issue of the ICHM Newsletter, the photo archive includes negatives, prints and slides, along with a projected database of known pictures, to include brief descriptions of each representation, its provenance and availability. The Commission eventually hopes, at some future date, to produce an *Album of Mathematicians*, suitable for publication, featuring a selection of these pictures with commentary.

Toronto workshop proceedings

Proceedings of the ICHM Workshop held at the University of Toronto (July-August, 1983), entitled *History in Mathematics Education*, are still available in paperback (as part of the series "Cahiers d'Histoire et de Philosophie des Sciences").

ICHM dictionary on history of mathematics

The Dictionary project edited by John Fauvel continues to progress. It is to be published by Oxford Univ. Press, probably in Oxford's "Companion" series, i.e., as a *Companion to the History of Mathematics*. There are still unallocated entries for which help would be very much appreciated.

Thanks to the IUHPS/DHS and IMU

The Executive Committees of the International Mathematical Union and International Union of the History of Philosophy of Science / Division of History of Science have been generous in funding a variety of special projects, international symposia and (in case of the IUHPS) basic administrative costs of the Commission's operations each year. The Commission wishes to take this opportunity to record its great appreciation for this continuing support of its activities.

Addresses of ICHM Chairman and Secretary, beginning January 1, 1994:

Chairman:
Professor Eberhard Knoblich
Technische Univ. Berlin
Fachbereich Math. und
Wissenschaftsgeschichte
Ernst Reuter Platz 7
D-1000 Berlin 10, Germany

Secretary:
Dr. Jeanne Peiffer
21, rue Hermel
F-75018 - Paris
France

INTERNATIONAL MATHEMATICAL UNION - IMU

STATEMENT OF INCOME AND EXPENDITURE - 1993

I N C O M E	BUDGET	ACTUAL
MEMBERSHIP	187.000,00	204.376,26
ICSU SUBVENTION	20.000,00	31.559,00
SALES OF W.D.M.	12.500,00	4.483,41
SPECIAL DEVELOPMENT FUND	15.000,00	50.588,94
INTEREST ON BANK ACCOUNTS	3.500,00	23.457,59
OTHER	-	-
T O T A L	<u>238.000,00</u>	<u>314.465,20</u>

E X P E N D I T U R E

SCHEDULE A:

SECRETARIAL HELP, IMU OFFICE	19.400,00	8.739,20
SECRETARIAL HELP, PRESIDENT	2.000,00	3.248,40
ICMI	10.000,00	10.000,00
CDE	5.500,00	5.500,00
CTS	600,00	615,00
OFFICE EXPENSES	7.500,00	7.936,45
TRAVEL EXPENSES OF THE E.C.	25.000,00	9.556,60
PRESIDENT AND SEC. EXPENSES	2.000,00	914,70
CONTRIBUTION TO ICSU	5.000,00	6.519,35
IMU BULLETIN	2.000,00	-
AUDIT FEE	2.000,00	1.490,00
GENERAL ASSEMBLY 1994	3.500,00	3.500,00
WORLD DIRECTORY OF MATHEMATICIANS	18.000,00	18.000,00
CONTIGENCIES	2.000,00	-
BANK CHARGES	-	774,77
SUB-TOTAL	<u>104.500,00</u>	<u>76.794,47</u>

SCHEDULE B:

SYMPOSIA, CONFERENCE, IMU LECTURES:	56.000,00	64.689,75
ICMI SCIENTIFIC ACTIVITIES	18.000,00	18.000,00
CDE SCIENTIFIC ACTIVITIES	15.000,00	46.559,00
PROGRAM COMMITTEE FOR ICM 1994	5.500,00	9.088,74
TRAVEL GRANTS	15.000,00	15.000,00
SUBVENTION TO ICM 1994	24.000,00	40.000,00
T O T A L	<u>133.500,00</u>	<u>193.337,49</u>
T O T A L	<u>238.000,00</u>	<u>270.131,96</u>

INTERNATIONAL MATHEMATICAL UNION

Rio de Janeiro, March 7, 1994

International Mathematical Union
Instituto de Matemática Pura e Aplicada (IMPA)
Estrada Dona Castorina, 110
Rio de Janeiro - RJ
22460 - Brasil

Independent Auditor's Report

I have audited the Financial Statements of the International Mathematical Union (IMU) prepared by the Secretary of IMU for the year ended December 31, 1993. The Statement of Income and Expenditure was prepared in accordance with the instructions given by the International Council of Scientific Unions (I.C.S.U.) in a letter dated December 2, 1993. My responsibility is to express my opinion about the Financial Statement.

C o m m e n t s

1 - Currency

The Financial Statements are expressed in US dollars and the Income and Expenditure for each month was translated into US dollars at the Unesco Rate of Exchange, which the International Council of Scientific Unions (I.C.S.U.) has made available throughout the year.

President:
Professor Jacques L. Lions, Paris
Secretary:
Professor Jacob Palis, Rio de Janeiro

SECRETARIAT:
*Instituto de Matemática Pura e Aplicada-IMPA
Estrada Dona Castorina, 110
22460 Rio de Janeiro RJ
Brazil*

*Telephone: 55 21 511-1749: 294-9032 ext. 1
Fax: 55 21-512-4112
Telex: 21-21145 IAMP
E-Mail: IMU@BHLNCC.BITNET*

INTERNATIONAL MATHEMATICAL UNION

2 - Income

The total of contributions from national members was US\$ 138.318,00. The number of members having unpaid dues, decreasead in 1993. The total amount of unpaid dues has also decreased from US\$ 49.917 by December 31, 1992, to US\$ 40.268,38 by December 31, 1993.

3 - Sales of Publications

The income of the editions of the World Directory of Mathematicians was US\$ 3.009,00. These editions have been sold in the year 1993, according to the statement of the American Mathematical Society.

4 - Expenditure


The Statement of Income and Expenditure includes loss on exchanges for the year 1993 in the amount of US\$ 21.182,99

5 - Bank Accounts

The balances of the bank accounts agree exactly with the respective bank statements.

6 - Final Comments

In my opinion the Financial Statement represents, in all relevant aspects, the patrimonial and financial position of the International Mathematical Union (I.M.U.) by December 31, 1993, in accordance with the Fundamental Principles of Accounting.


Alexandre Maria de Oliveira
Autorised Independent Accountant
CRC - RJ. 70811

President:
Professor Jacques L. Lions, Paris
Secretary:
Professor Jacob Palis, Rio de Janeiro

SECRETARIAT:
Instituto de Matemática Pura e Aplicada - IMPA
Estrada Dona Castorina, 110
22460 Rio de Janeiro RJ
Brazil

Telephone: 55 21 511-1749: 294-9032 ext. 148
Fax: 55 21:512-4112
Telex: 21:21145 IAMP
E-Mail: IMU@BHLNCC.BITNET

**INTERNATIONAL MATHEMATICAL UNION - IMU
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1993**

I. INCOME	NOTES	US DOLLARS
Grant from ICSU Fund and Sp.Contributions		-
Allocation from Unesco Subvention to ICSU		20.900,00
Unesco Contracts		-
Contributions from National Members	1	138.318,00
Contributions from Scientific Members		-
Special Contributions		33.919,38
Contracts		-
Sales of Publications, Royalties		3.009,00
Sales of scientific materials		-
Bank interest		16.608,07
Gain on Exchange		-
Other Income		-
T O T A L I N C O M E		<u>212.754,45</u>
II. EXPENDITURE		
A) SCIENTIFIC ACTIVITIES		
General Assembly		2.348,99
Scient.Meetings:Symposia/Colloquia/Working Groups, etc		44.112,55
Representation at Scientific Meetings		-
Data Gathering/Processing		-
Research projects		-
Grants to Individuals/Organizations	2	42.754,29
Other (Subvention to ICM/94		26.845,63
LESS COVERED BY UNESCO CONTRACT		-
ROUTINE MEETINGS		-
Bureau/executive Committee		12.838,39
Other		-
PUBLICATIONS	3	12.080,53
B) OTHER ACTIVITIES		
Contribution to ICSU		4.221,00
Contributions to other ICSU bodies		19.692,95
SCOSTED, COBIOTECH, FAGS, (ETC)		-
Activities covered by Unesco Contracts		-
ADMINISTRATIVE EXPENSES:		
Salaries and Related Charges		5.800,00
General Office Expenses		8.189,78
Office Equipment		-
Audit Fees		1.000,00
Bank charges		525,43
Loss on exchange		21.182,99
T O T A L E X P E N D I T U R E		<u>201.592,53</u>
EXCESS OF INCOME OVER EXPENDITURE		11.161,92
OR EXCESS OF EXPENDITURE OVER INCOME		-
ACCUMULATED BALANCE AT 1, JANUARY, 1992		483.361,77
ACCUMULATED BALANCE AT 31 DECEMBER 1993		494.523,69

BALANCE SHEET AT DECEMBER 31, 1993

	NOTES	1 9 9 3	1 9 9 2
ASSETS			
Bank Accounts and cash	4		
Cash			
Current accounts		52.306	-
Deposit accounts		<u>543.044</u>	174.700
Prepayments	5	7.692	<u>381.944</u>
Receivable		<u>5.774</u>	556.644
			<u>7.692</u>
			<u>8.822</u>
TOTAL ASSETS		608.816	573.158
LESS: Liabilities			
Creditors and accruals	6	<u>12.526</u>	<u>12.526</u>
		<u>596.290</u>	<u>560.632</u>
ACCUMULATED FUNDS			
General Fund	7		
Balance at December 31, 1992		483.361	410.199
Excess of Income over Expenditure		<u>11.162</u>	<u>73.162</u>
		494.523	483.361

TRANSFER

	TRANSFER	494.523		483.361
Special Development Fund				
Balance at December 31, 1992	47.307		36.891	
Prevision to ICM 94	<u>10.067</u>	57.374	<u>10.416</u>	47.307
General Assembly Fund				
Balance at December 31, 1992	4.877		2.447	
Prevision to General Assembly 1994	<u>2.349</u>	7.226	<u>2.430</u>	4.877
World Directory of Mathematicians Fund				
Balance at December 31, 1992	25.087		12.587	
Prevision to W.D.M.	<u>12.080</u>	<u>37.167</u>	<u>12.500</u>	<u>25.087</u>
		<u>596.290</u>		<u>560.632</u>

INTERNATIONAL MATHEMATICAL UNION

1. STATEMENT OF CONTRIBUTIONS RECEIVED FROM MEMBERS DURING THE YEAR ENDED DECEMBER 31, 1993

MEMBER	PRE 1993	1 9 9 3	T O T A L
Argentina	1.496,59	1.560,28	
Australia	-	2.913,90	
Austria	-	1.456,95	
Brazil	-	6.092,70	
Canada	-	5.099,33	
Chile	-	1.646,00	
China, Taiwain	1.496,59	-	
China, Beijing	2.993,19	2.993,20	
Czechoslovakia	-	3.076,92	
Denmark	-	1.608,39	
Finland	-	1.456,95	
France	-	7.284,76	
Germany	-	7.284,76	
Greece	-	769,23	
Hong Kong	-	748,29	
Hungary	-	2.953,02	
Iceland	-	728,47	
Iran	728,47	728,47	
Ireland	1.538,46	-	
Italy	-	5.099,33	
India	-	3.120,56	
Israel	2.905,96	2.993,19	
Japan	-	7.692,30	
Korea, Rep.of	-	1.496,59	
Mexico	-	1.560,28	
Netherlands	-	2.913,90	
Norway	-	769,23	
Philippines	-	738,25	
Portugal	-	728,47	
Poland	1.632,65	-	
Royal Society	-	7.284,76	
Russia	7.090,00	9.230,00	
Saudi Arabia	-	769,23	
Sweden	-	2.913,90	
South Africa	-	1.496,59	
Singapore	-	728,47	
Slovenia	-	754,41	
Spain	2.913,90	2.913,90	
Switzerland	-	2.913,90	
Turkey	-	369,12	
USA	-	7.692,30	
Venezuela	733,84	-	
Vietnam	1.472,02	736,03	
	<hr/>	<hr/>	<hr/>
	25.001,67	113.316,33	138.318,00

2. GRANTS TO INDIVIDUALS/ORGANIZATIONS

I.C.M.I.	11.921
C.D.E / I.M.U.	9.933
C.D.E.	20.900
	<hr/>
	42.754

3. PUBLICATIONS

	1993	1992
World Directory of Mathematicians	12.080	12.500
	<hr/>	<hr/>
	12.080	12500

NOTES TO BE READ IN CONNECTION WITH THE FINANCIAL STATEMENT
OTHER NOTES

		<u>1 9 9 3</u>		<u>1 9 9 2</u>	
		<u>Currency</u>	<u>USD</u>	<u>Currency</u>	<u>USD</u>
4. BANKS AND CASH					
The amount held with banks is made up as follows					
Credit Swiss	Switzerland				
- Current Account		FS 66.901	44.900	171.323	118.974
- Deposit Account- Money Market		FS 809.136	543.044	550.000	381.944
Kansallis Osakke Pankki	Finland				
- Current Account		FS 11.035	<u>7.406</u>	80.245	<u>55.726</u>
			<u>595.350</u>		<u>556.644</u>

5. PREPAYMENTS

BALANCE 31.12.93		7.692
		<u>7.692</u>

6. CREDITORS AND ACCRUALS

BALANCE 31.12.91	10.526	
Audit Fee	1.000	
Accountant 1993	<u>1.000</u>	12.526
		=====

7. FUNDS

These funds represent the amounts set aside to cover the following

Provided in Year ended	1993 General Fund	1993 General Assembly	1993 World Directory	1993 Special Development Fund
General Fund				
Balance 31.12.92	483.361			
Transfer from the income of expenditure over excess	11.162			
Special Development Fund				47.307
Balance 31.12.92				10.067
Prevision to ICM 94				
General Assembly Fund		4.877		
Balance 31.12.92		2.349		
Prevision to General Assembly 94				
World Directory of Mathematicians Fund			25.087	
Balance 31.12.92			12.080	
Prevision to W.D.M.				
	494.523	7.226	37.167	57.374

**STATEMENT OF INCOME AND EXPENDITURE:
FINANCIAL YEARS 1992 AND 1993 COMPARED**

INCOME	1 9 9 3		1 9 9 2	
Allocation from Unesco grant to ICSU	20.900		20.900	
Contributions from National Members	137.949		120.604	
Special Contributions	33.919		47.898	
Sale of Publications	3.009		6.057	
Bank Interest	16.608		20.137	
Gain on Exchange	-		13.326	
Other Income	<u>369</u>	212.754	<u>-</u>	228.922
EXPENDITURE				
A. MEETINGS				
Executive Committee meetings	12.838		15.470	
Other	-		-	
Program Committee	26.846		2.660	
General Assembly	<u>2.349</u>	42.033	<u>2.431</u>	20.561
B. PUBLICATIONS				
		12.080		12.500
C. SCIENTIFIC ACTIVITIES				
I.C.M.I	11.921		12.080	
C.D.E.	20.900		20.900	
Travel Grants	10.067		10.416	
Conferences	34.045		24.440	
Others	<u>9.029</u>	85.962	-	67.836

D. ADMINISTRATIVE EXPENSES	1 9 9 3		1 9 9 2	
Contribution to ICSU	4.221		3.242	
Grant to CTS	400		417	
Grant to ICM	6.623		6.711	
Grant to CDE	13.575		11.364	
Audit Fees	1.000		2.000	
Salaries and related charges	5.800		5.100	
General office expsns	8.190		5.309	
Office Equipment	-		2.275	
Bank charges	525		381	
Loss on exchange	21.183	<u>61.517</u>	<u>18.064</u>	<u>54.863</u>
		<u>201.592</u>		<u>155.760</u>
EXCESS OF INCOME OVER EXPENDITURE		11.162		67.105
Allocated to:				
General Fund	11.162	(11.162)	67.105	(67.105)

INTERNATIONAL MATHEMATICAL UNION

DUES ARREAS AS FOR JANUARY 1, 1994

MEMBER	DUES (Swiss Francs)	YEAR (s)	USD
Argentina	2000	1989	1.342,28
Bulgaria	5.600	1991/93	3.758,38
Belgium	4.400	1993	2.953,02
Cameron	3.300	1991/93	2.214,76
China Taiwain	2.200	1993	1.476,51
Cuba	3.300	1991/93	2.214,76
Croatia	1.100	1993	738,25
Egypt	2.200	1992/93	1.476,51
Georgia	2.200	1993	1.476,51
Ireland	2.200	1993	1.476,51
Ivory Coast	3.300	1991/93	2.214,76
Korea Republic of	2.200	1991/92	1.476,51
New Zealand	2.200	1993	1.476,51
Nigeria	4.300	1990/93	2.885,90
Philippines	1.100	1991	738,25
Poland	6.000	1988/89	4.026,84
Romania	3.100	1988/89-93	2.080,53
Turkey	550	1993 (part)	369,12
Yugoslavia	7.650	1988/93	5.134,22
Venezuela	1.100	1993	738,25
			<hr/>
			40.268,38

1 USD = 1.49 SFR = DECEMBER 31, 1993

COMMISSION ON DEVELOPMENT AND EXCHANGES
C D E
Accounts for the year end 1993

INDIVIDUALS

Y. Bozhkov		\$ 1,100	ICSU \$ 1,000
Z. Tang		\$ 1,500	ICSU \$ 1,000
H. Lu		\$ 1,000	ICSU \$ 1,000
Y. Starkov		\$ 700	ICSU \$ 500
Duo Wang		\$ 1,500	ICSU \$ 1,000
V. Muruganandam		\$ 1,000	ICSU \$ 1,000
M. Passare		\$ 1,000	ICSU \$ 900
D. Sangare	(F 5,150)	\$ 945	ICSU \$ 500
A. Benhissi	(F 1,200)	\$ 198	
Subtotal		\$ 8,943	ICSU \$ 6,900

CONFERENCES

Assadi		\$ 2,000	ICSU \$ 1,500
(Workshop Alg. Geometry Nankai)			
Dabbour		\$ 2,000	ICSU \$ 1,500
(Workshop Alg. Geometry Cairo)			
Ortega		\$ 2,000	ICSU \$ 1,500
(Conf. Harm. Anal. Caracas)			
Bennani		\$ 2,000	ICSU \$ 1,500
(Conf. Applied Math Rabat)			
Ramadas		\$ 2,000	ICSU \$ 1,500
(Conf. Vect. Bundles Bombay)			
Kuku		\$ 2,000	ICSU \$ 1,500
(Conf. AMU Ibadan)			
Subtotal		\$12,000	ICSU \$ 9,000

TEAMS

Tirao (Argentina)		\$ 3,000	ICSU \$ 3,000
Le van Thanh (Vietnam :committed)		\$ 3,000	ICSU \$ 2,000
Subtotal		\$ 6,000	ICSU \$ 5,000
Transfer fees		\$ 302	
Subtotal 1993 Academic exp.		\$27,245	ICSU \$20,900
Subtotal 1993 Secretarial exp.		\$ 370	

1993 FUNDS RECEIVED

IMU (Academic exp.)		\$10,000	
ICSU		\$20,900	
Math. Soc. Japan		\$ 1,390	
Ass. European Congress Math Paris		\$ 540	
Soc. Math. France		\$ 950	
UNESCO (1992 grant 2nd payment)		\$ 800	
IMU (Administrative exp.)		\$ 3,700	
Total funds received		\$38,280	ICSU \$20,900
Total 1993 CDE expenses		\$27,615	ICSU \$20,900
Balance 93		\$10,665	ICSU \$ 0

INTERNATIONAL COMMISSION FOR MATHEMATICAL INSTRUCTION

ICMI

ACCOUNTS 1993, December 31

Swiss Franc Account:

Income:

balance 1992	59.491,46
IMU (Schedule A: Administration)	10.000,00
IMU (Schedule B: Scientific Activities)	18.000,00
interest	1.950,34
total	<u>89.441,80</u>

Expenditure:

transfer charges (IMU)	11,96
balance 1993	89.429,84
total	<u>89.441,80</u>

Danish Kroner Account:

Income:

ICMI balance ¹⁾ 1992	4.168,52
Solidarity Fund balance ¹⁾ 1992	916,16
transfer from US Dollars Account (1.000)	6.578,00
total	<u>11.662,68</u>

Expenditure:

EC meeting in Hoor (Sweden), President's and Secretary's working preceding meeting in Copenhagen	8.301,66
ICMI study on gender, in Hoor (Sweden) ²⁾	1.732,40
typing Bulletin 34 & 35	1.800,00
credit card charge	150,00
Solidarity Fund balance 1993	916,16
ICMI Balance 1993	- 1,237,54
total	<u>11.662,68</u>

Sterling Account:

Income:	
balance 1992	23.913,48
CUP royalties for studies	142,65
interest	815,88
total	<u>24.872,01</u>
Expenditure:	
International Mathematical Olympiads SC grant	300,00
transfer charges	4,29
balance 1993	24.567,72
total	<u>24.872,01</u>

US\$ Account:

Income:	
ICMI balance ¹⁾ 1992	9.316,75
Solidarity Fund balance ¹⁾ 1992	20.300,00
Unesco grant for ICME-7, last instalment ³⁾	800,00
interest	129,87
private contributions ⁴⁾ to ICMI's Solidarity Fund	529,58
total	<u>31.076,20</u>
Expenditure:	
EC member's participation in ICME-7 (late payment)	1.823,39
EC meeting in H++r (Sweden), October 1993 ²⁾	433,00
transfer to Danish Kroner Account	1.000,00
transfer charges	4,57
Solidarity Fund balance 1993	20.829,58
ICMI balance 1993	6.985,66
total	<u>31.076,201</u>

Notes:

1. As a consequence of the ICMI General Assembly and Executive Committee meetings held in Quebec, August 1992, it was decided to establish an ICMI Solidarity Fund based on private contributions. The Solidarity Fund is mounted to assist mathematics education and mathematics educators in less affluent countries. Its money can only be spent (by a committee chaired by Professor Jean-Pierre Kahane) to serve such purposes and is therefore not part of ICMI's general resources. However, the appearance of the Solidarity Fund on the ICMI accounts for 1992 is due to the wish to keep ICMI's number of different bank accounts low. However, for 1993 the accounts exhibit the ICMI balances and the Solidarity Fund balances separately where this makes sense.

2. In 1993 the preparation and holding of the ICMI study conference on Gender and Mathematics Education took place in Hoor Sweden. Only some of the costs were paid in 1993. An additional amount of about US\$ 2.000 is due in 1994. An EC meeting was held in connection with the study conference.

3. In 1992 Unesco Contributed a grant of US\$ 3.000 to support the participation in ICME-7 of delegates from developing countries. In accordance with Unesco practice the grant was paid in two parts. The first part (US\$ 2.200) was included in the accounts for 1992. The second part (US\$ 800) was paid in 1993.

4. Of this amount, US\$ 500 was granted by the Federación Española de Sociedades de Profesores de Matematicas. In fact, this Federación gave a larger contribution to the Solidarity Programme as it spent further US\$ 1.500 to directly support work done in Nicaragua by Professors Martínez and de Guzmán within the framework of the Solidarity Programme, on which a report was published in Bulletin No. 34, June 1993.

5. In addition to the amounts displayed directly in the accounts, considerable extra sums should appear but do not and cannot. In 1993 Roskilde University (the Secretary's institution) has contributed a substantial support of ICMI's work (e.g. telephone and -fax, e-mail facilities, postage, all the printing and distribution costs of the Bulletin, plus secretarial help of various sorts). It is estimated that the total contribution of Roskilde University is equivalent about US\$ 5.000. The ICMI Executive Committee expresses its gratitude for this generous support.

The Executive Committee's thanks also go to the institutions of its other members. These institutions, too, have given invisible support to ICMI's work in a variety of ways. For instance, in many cases these institutions have paid travel and other expenses related to participation in EC meetings and soforth.

6. In 1994, the preparation and holding of an ICMI study conference (on What is Research in Mathematics Education, and What are Its Results) and the preparation of one (on New Perspectives on the Teaching of Geometry for the 21st Century) will imply considerable costs.

Mogens Niss
7 March 1994

**FINANCIAL REPORT ON THE
WORLD DIRECTORY OF MATHEMATICIANS - 9th EDITION
FOR THE YEAR ENDED DECEMBER 31, 1993**

REVENUE:

94 Units at \$ 40	3.760,00	
4 Units at \$ 36	44,00	
1 Unit at \$ 32	32,00	
1 Unit at \$ 28	28,00	
1 Unit at \$ 26	26,00	
8 Unit at \$ 0	<u> </u>	
		3.990,00
 AMS Service Fee		
109 Unities at \$ 9,00		981,00
		<u> </u>
Balance Due You		3,009.00 =====