

I M U

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International Mathematical Union**

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S E C R E T A R I A T

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**34° Bulletin of the
International Mathematical Union**

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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, 1992:

- I: Cameroon, Chile, Cuba, Egypt, Greece, Hong Kong, Iceland, Iran, Ivory Coast, Democratic Republic of Korea, Republic of Korea, Mexico, New Zealand, Nigeria, Norway, Philippines, Portugal, Romania, Singapore, Turkey, Vietnam, Venezuela.
- II: Argentina, Austria, Bulgaria, Denmark, Finland, Ireland, 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, Slovenia and Croatia were admitted to the Union in Group I and Georgia was admitted to the Union in Group II, as of January 1, 1993.

Also in postal ballots, Mexico and the Republic of Korea changed from Group I to Group II, as of January 1, 1993.

Meetings of the Executive Committee

The Executive Committee had its 57th meeting in Rio de Janeiro, Brazil, on May 7-8, 1992.

Excerpts of the Meeting:

1. Program "Turn of the Century"

On May 6, 1992, Professor Jacques Louis Lions, President of IMU, declared the Year 2000 as the World Mathematical Year.

WORLD MATHEMATICAL YEAR 2000

On May 6th, 1992, in Rio de Janeiro, during the celebration of the 40th anniversary of the world-wide reputed Institute of Pure and Applied Mathematics (IMPA), Professor Jacques-Louis Lions, President of the International Mathematical Union (IMU) declared in the name of this Union, that the year 2,000 will be a **WORLD MATHEMATICAL YEAR**.

WMY 2,000 (World Mathematical Year 2,000) is set under the sponsorship of UNESCO (Professor Frederico MAYOR), of the **THIRD WORLD ACADEMY OF SCIENCES** (Professor Abdus SALAM and Professor Carlos CHAGAS, who took part in the Declaration of Rio de Janeiro), of the **FRENCH MINISTER OF RESEARCH AND SPACE** (Professor H. CURIEN), OF THE **BRAZILIAN STATE SECRETARY OF SCIENCE AND TECHNOLOGY** (Professor Helio JAGUARIBE), of the **BRAZILIAN ACADEMY OF SCIENCES** (Professor Israel VARGAS) and of the **SWISS FEDERAL COUNSELLOR**, Dr. Flavio COTTI, the next International Congress of Mathematicians being organized in Zürich in August 1994.

THE DECLARATION OF RIO DE JANEIRO set three aims

1. *First Aim*: the great challenges of the 21st century.

During his conference in Paris in 1900, David HILBERT, listed a series of the main problems that the now ending century had to challenge.

The American Mathematical Society suggested in 1990, at the last General Assembly of IMU in KOBE (Japan), that reputed mathematicians, to be represented within the *Turn of the Century Committee* organize the efforts to envision what the great challenges of the year 2,000 would be. This Committee is chaired by Professor Jacob PALIS, IMPA, General Secretary of IMU.

2. *Second Aim*: Mathematics, keys for development.

Pure and Applied Mathematics is one of the main keys of the understanding of the world and of its development.

That is why it is essential that the countries which are members of UNESCO are gradually able to reach a level enabling their admission to IMU, the members of which are 50 nations for the time being.

Therefore, the *second aim* of the DECLARATION of RIO DE JANEIRO is that most countries which are members of UNESCO reach such a level for the turn of the century.

That implies great additional efforts in the fields of **Education**, of **Training**, and, as a very sensitive point for countries that face difficulties in having currency resources, of access to **Scientific Information**.

Such efforts, which have already been widely undertaken will be confirmed and raised by the two main commissions of IMU: **I.C.M.I. (International Commission on Mathematical Instruction)**, which is chaired by Professor M. de GUZMAN, from Madrid and whose General Secretary is Prof. M. NISS from Denmark, and the **C.D.E. (Commission on Development and Exchange)**, which is presided by Professor M. S. NARASIMHAN, from Bombay and whose General Secretary is Professor P. BÉRARD, from Grenoble, France. Both Commissions are linked with UNESCO, which was represented in Rio de Janeiro by Professor A. MARZOLLO, responsible for Mathematics.

3. *Third Aim*: the image of Mathematics.

The DECLARATION OF RIO DE JANEIRO sets as *third aim*, which also has the greatest importance, a systematic presence of mathematics in the "*information society*" thanks to examples and applications which will be scientifically exact and open to the largest number.

That will be developed in connection with such efforts which have already been undertaken by many countries that are members of IMU.

The DECLARATION OF RIO DE JANEIRO on MATHEMATICS announcing the WORLD MATHEMATICAL YEAR 2,000, was warmly supported not only by all the mathematicians present in Rio and who had come from all continents, and by, of course, many of the Brazilian most eminent mathematicians, but also by Professors in other subjects too, and especially Professor Carlos CHAGAS former President of the Pontifical Academy of Sciences.

2. Former Soviet Union

Traditionally the International Mathematical Union has been very sensitive about mathematical activities in developing countries and a number of IMU efforts are devoted to that. The situation of the countries from former Soviet Union is quite different: they need the cooperation of all the countries to help them to preserve the high mathematical level that they have generally achieved. In particular, there is the question of the adequacy of libraries. The E.C. decided to contribute out of its reserve funds US\$ 5,000 (five thousand dollars) to the library of the University of Moscow through the Moscow Mathematical Society and US\$ 5,000 (five thousand dollars) to the Steklov Institute at St. Petersburg. The President of IMU was also asked to write to the Adhering Organizations / National Committees of Groups IV and V to request their sympathy and cooperation to the same cause.

3. Conferences approved in the 56th E.C. meeting of IMU

1 9 9 2

International Symposium on the 100th Anniversary of the Births of Li Yan and Qian Baozong, held in Beijing, China, from August 21-23, 1992 - **requested by ICHM.**

Granted: US\$ 1.000,00

IMU Representative: H.Komatsu

7th International Congress on Mathematical Education, ICME-7, held at Univ. Laval, Québec, Canada, 17-23 August, 1992. **requested by ICMI.**

Granted: CHF 11.000

IMU Representative: J.Palis

1 9 9 3

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

Granted: CHF 6.000

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

Conference in Abstract Analysis, to be held in South Africa - April 1993

Granted: CHF 5.000

IMU Representative: J. Arthur

V Latin American Congress on Probability and Mathematical Statistics (V CLAPEM), to be held in São Paulo, in June, 1993

Granted: CHF 11.000

IMU Representative: J.Palis

Conferences supported by IMU without financial assistance:

1 9 9 2

International Conference in Functional Analysis, held in Mons - Belgium from 24 to 28 August, 1992.

IMU Representative: Jacques Louis Lions

1 9 9 4

Symposium on History of Mathematics, Warwick - 1994

IMU Representative: John Coates

Grand Conference Internationale de Physique Mathématique, to be held in Paris, from July 18-23, 1994.

IMU Representative: Ludwig Faddeev

Instructions for Seeking Support for Conferences

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 preceding 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.*

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 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

and also to

Account no. 100020-411-CHF-5706 FR
Kansallis-Osake-Pankki
Aleksanterinkatu 42
SF-00100 Helsinki
Finland.

The goal right now is to collect funds for travel grants for the 1994 International Congress of Mathematicians in Zürich

In 1992, the following contributions have been received

The Royal Society - CHF 11.555,75

American Mathematical Society - CHF 41.402,63

Deutsche Mathematiker-Vereinigung - CHF 9.025,05

Netherlands - CHF 2.300,00

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. Please notice that there is no special form to be filled.

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. 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, 1994. They could be done through fax or e-mail.

IMU SECRETARIAT:

International Mathematical Union

Professor Jacob Palis, Secretary

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Report for 1991 of the International Mathematical Union

Professor Jacob Palis, Secretary

1. 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 scientific 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 educational. 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.

2. Membership

The members of IMU are countries. At the moment IMU has 50 members. Two other countries, Saudi Arabia and Venezuela will become members of the Union once the constitution of their National Committee for Mathematics become known.

3. Scientific Meetings

Conferences Supported by IMU in 1991

IAMP Congress - Mathematical Physics was held in Leipzig, DDr, on July 30 - August 8, 1991. The IMU representative was Prof. L. Faddeev. IMU gave a grant of 10.000 Swiss francs to the meeting.

SEVENTH SYMPOSIUM ON GENERAL TOPOLOGY AND ITS RELATIONS TO MODERN ANALYSIS AND ALGEBRA, was held in Prague, Czechoslovakia, from August 19-24, 1991. The IMU representative was Prof. L.Lovasz. IMU gave a grant of 5.000 Swiss francs to the meeting.

INTERNATIONAL CONFERENCE ON THE THEORY OF RINGS, ALGEBRAS AND MODULES. It was a conference dedicated to the 70th anniversary of A.I. Shirshov, held at the Altai University, Barnaul, U.S.S.R., from August 23-27, 1991. IMU gave a grant of 5.000 Swiss francs to the meeting.

THE INTERNATIONAL SYMPOSIUM ON ALGEBRAIC GROUPS AND RELATED NUMBER THEORY, organized by the Univ. of Minsk, from May 22-29, 1991. The IMU representative was Prof. W. Feit and IMU gave a grant of 5.000 Swiss francs to the meeting.

THIRD PAN AFRICAN CONGRESS OF MATHEMATICS, organized by the Univ. of Nairobi, Kenya, from August 13-23, 1991. The IMU representative was Prof. Jacob Palis and IMU gave a grant of CHF 10.000 Swiss francs to the meeting.

X ESCOLA LATINO AMERICANA DE MATEMATICAS - ELAM, organized by the Univ. of Cordoba from August 12-21, 1991. The IMU representative was Jacob Palis. IMU gave a grant of 11.000 Swiss francs.

4. Education

The latest of the quadrennial International Congress on Mathematical Education, ICME-6, was held in Budapest, Hungary, 1988. The Programme and Organizing Committees for the next congress, ICME-7, which is to be held at Université Laval, Québec, Canada, August 17-23, 1992, have invested immense efforts in planning the congress which is expected to have an attendance of more than 3000 participants from all parts of the world.

The Executive Committee has decided with great pleasure to accept Spain's bid to host ICME-8, in Sevilla. A general invitation to submit bids to host ICME-9, in the year 2000, has been issued in ICMI Bulletins Nos. 30 and 31.

The year 1991 was a year of planning for the IMU International Commission on Mathematical Education, ICMI. The Program Committee for the 7th ICME-7 met in June, and planning meetings were also held in connection with the studies on the Influence of Computers and Informatics on Mathematics and its Teaching; the Assessment in Mathematics Education and its Effects; the Mathematics and Science Training of Elementary School Teachers; Gender and Mathematics Education; UNESCO supported part of these meetings.

5. Activities Involving Developing Countries

In 1991, through the program UNESCO-IMU, the Commission on Development and Exchange, CDE supported the following conference:

WORKSHOP IN TOPOLOGY OF GAUGE FIELDS", held in Campinas, Brazil, in April, 1991. The financial support was US\$ 2.000

The Commission gave travel grants to the following persons:

Prof. J. Alcantara-Bode, PUC - Peru, for a 6-month visit to the Univ. of Heidelberg.

Prof. E. Mahmoodian, Univ. Technology Sharif, Iran, for a visit of one year to the Univ. of Queensland, Australia

Prof. R. Markarian, Univ. Montevideo, Uruguay, for a visit of one-month to the Inst. Landau, Moscow.

Prof. V. Muruganandam, Univ. Pondichéry, India, for a visit of one-year to the Univ. of Poitiers, France.

Prof. K. Seddighi, Univ. Shiraz, Iran, for a visit of one-year to the Univ. of Calgary, Canada.

Prof. S.P. Tan, Univ. Nat. Singapoure, for a visit of two-months to the Univ. of Maryland.

In 1991, through the Program UNESCO-IMU, CDE provided Prof. Dinh Van Huynh, from Inst. Math. Hanoi, a fellowship to visit the Univ. of Dusseldorf.

6. Other Scientific Activities

The International Commission on the History of Mathematics, ICHM, a joint commission of IMU and the International Union of the History and Philosophy of Science, supported the *First Summer School for History of Mathematics in Portugal* in Herdade da Mitra, Evora, from July 16–21, 1990. Organized by Professors Jean Dhombres (University of Nantes) and Luis Saraiva (University of Lisbon), the summer school included twenty-eight participants. The goal was to help create in Portugal a group of historians of mathematics. The focus of the summer school was on styles and methods in history of mathematics.

During the 11th General Assembly of the IMU, Jean Dhombres and H. Edwards were elected as IMU members to serve on the Executive Committee of the joint International Commission on the History of Mathematics for the period 1991–1994.

At the International Congress of Mathematicians two invited 45-minute lectures were devoted to history of mathematics. ICHM co-sponsored, with the History of Science Society of Japan and the Organizing Committee of the Kyoto ICM-90, a conference on *History of Mathematics* at the University of Tokyo, August 31 and September 1, 1990. The Tokyo Symposium emphasized three areas in particular: 1) mathematical traditions in the East, 2) the history of mathematics in modern Europe, and 3) the interaction between mathematical research and the history of mathematics. In addition to 22 invited lectures, a separate session was devoted to short communications.

The next *International Congress of History of Science* will be held in Zaragoza, Spain, in 1993.

Periodically, the Commission updates its *World Directory of Historians of Mathematics*. Work on the new edition is underway. In conjunction with this work, the International Commission intends to compile a database of more detailed information about historians of mathematics around the world.

The ICHM is also exploring various ways to support the maintenance and future development of a catalogue of photographs of mathematicians in conjunction with the collection already housed at the Mathematisches Forschungsinstitut in Oberwolfach, Germany.

The ICHM Dictionary on History of Mathematics project continues to progress.

7. Publications

IMU published the Bulletin No.33, in 1991.

ICMI published the Bulletins No. 30 and 31.

8. Organizational Matters

The Executive Committee of IMU met in Paris, on April 17–19, 1991.

9. Vital Statistics

50 members (countries)

13 conferences: 6 (IMU) + 4 (CDE) + 3 (ICMI) conferences supported

1 (IMU) + 2 (ICMI) bulletins; most conferences publish their proceedings.

CDE Activities in 1991

Professor Pierre Bérard, Secretary

Travel Grants for 1991 through the program UNESCO-IMU:

In 1991, the program UNESCO-IMU, gave financial support to 6 mathematicians from developing countries:

Professor J. Alcantara-Bode, PUC of Peru, for a 6 month visit to the Univ. of Heidelberg (Germany).

Support given: fellowship of the Von Humbolt Foundation and US 1,500 of the UNESCO/IMU program.

Professor E. Mahmoodian, Univ of Technology Sharif (Iran), for a one-year visit to the Univ. of Queensland (Australie).

Support given: US 1,500

Professor R. Markarian, Univ. de Ingenieria, Uruguay, for a one-month visit to the Landau Inst. (Moscow).

Support given: US 1,500

Prof. V. Muruganandam, Univ. Pondichéry (India), for a one-year visit to the Univ. de Poitiers (France)

Support given: US 1,000

Prof. K. Seddighi, Univ. de Shiraz (Iran), for a one-year visit to the Univ. de Calgary (Canada).

Support given: US 1,000

Professor S.P. Tan, for a two-month visit to the Univ. of Maryland.

Support given: US 1,000

Fellowship

In 1991, through the program UNESCO-IMU, CDE has awarded one fellowship to Prof. Dihn Van Huynh, from Inst. of Math. of Hanoi, to visit the Univ. of Dusseldorf.

Conference supported in 1991

Workshop "*Topology of Gauge fields*", organized in April 1991, Campinas, São Paulo, Brazil, by Professors F. Burstall (Univ. of Bath.) and A. Rigas (UNICAMP).

Report for 1992 of the International Mathematical Union

Professor Jacob Palis, Secretary

1. 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 scientific 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 educational. 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.

2. Membership

The members of IMU are countries. At the moment IMU has 51 members. Venezuela became member of IMU as for January 1st, 1992. Saudi Arabia has not still sent the composition of its National Committee for Mathematics.

3. Scientific Meetings

Conferences Supported by IMU in 1992

International Research Workshop on Banach Space Theory, held in Merida, Venezuela, from 6 to 17 of January, 1992. The IMU representative was Prof. Jacob Palis. IMU gave a grant of 5.000 Swiss Francs to the meeting.

International Colloquium on Geometry and Analysis, held at TATA Institute of Fundamental Research, in January 1992. The IMU representative was Prof. David Mumford. IMU gave a grant of 11.000 Swiss Francs to the meeting.

Premier Congrès Europeen de Mathématiques (CEM), held in Paris, France from July 6 to 10, 1992. The IMU representative was Prof. Jacques Louis Lions. IMU gave a grant of 11.000 Swiss Francs to the meeting.

Winter School in Abstract Analysis, held at Strobl am Wolfgangssse, Austria, from Feb. 3 - 8, 1992 The IMU representative was Prof. Jacques Louis Lions. IMU gave a grant of 5.000 Swiss Francs to the meeting.

International Symposium on the 100th Anniversary of the Births of Li Yan and Qian Baozong, held in Beijing, China, from August 21-23, 1992 - **requested by ICHM**. The IMU representative was Prof. H. Komatsu. IMU gave a grant of US\$ 1.000,00 to the meeting.

7th International Congress on Mathematical Education, ICME-7, held at Univ. Laval, Québec, Canada, 17-23 August, 1992. **requested by ICMI**. The IMU representative was Prof. Jacob Palis. IMU gave a grant of 11.000 Swiss Francs to the meeting.

International Conference on Group Theory, held in Timisoara, from 17-20 September, 1992. The IMU representative was Prof. L. Lovasz. IMU gave a grant of 3.000 Swiss Francs to the meeting.

International Conference in Functional Analysis, held in Mons - Belgium from 24 to 28 August, 1992. The IMU representative was Prof. Jacques Louis Lions and IMU gave its imprimatur to the meeting.

4. Education

- International Commission on Mathematical Instruction - ICMI

ICMEs

ICME-7 (The 7th International Congress on Mathematical Education) was held at Université Laval, Québec, Canada, 17-23 August 1992. More than 3300 delegates from more than 75 countries participated in the congress which is considered to have been very successful. The Canadian and international organisers deserve praise and gratitude from the international mathematical education community in general and from ICMI in particular.

At its meeting in April 1991, in Barcelona, the Executive Committee decided to accept Spain's bid to host **ICME-8** in Sevilla in July/August 1996. The International Programme Committee - to be chaired by Professor Claudi Alsina, Barcelona, was appointed by the EC in August 1992.

The EC/ICMI has not yet received any bids to host ICME-9 in the year 2000. At least two countries are known to be considering to submit bids.

5. Activities Involving Developing Countries

Comission on Development and Exchange - CDE

In 1992, through the program UNESCO-IMU , the Commission on Development and Exchange, CDE supported the following conferences:

LOWDIM: The Low Dimensional Topology Conference was held in Gokova (Turkey), May 24-31, 1992. The CDE provided support (\$3050) for travel expenses of invited speakers; ICSU \$ 2000; IMU \$ 1050.

FAGA: The International Conference on Functional Analysis and Global Analysis was held in Quezon City (The Philippines), October 5-9, 1992. The CDE provided \$ 2010 for the academic expenses of this conference: ICSU \$1900; IMU \$ 110.

GIRAGA: The Giraga IV seminar (Groupe Inter-africain de Recherches en Analyse, Géométrie et Applications) was held on December 8, 1992 in Porto Novo (R.P. Benin). This conference received \$ 2000 from CDE to support scientific activities: ICSU \$ 1000; IMU \$ 500; UNESCO-ROSTA \$ 500.

In 1992 the CDE supported a team in Hanoi, Vietnam, working in Topology and Singularity Theory. The choice of this team has been made after careful scientific scanning. It was granted \$ 3,000 from ICSU.

The Commission gave travel grants to the following persons:

Prof. G. Corach (Inst. Argentino de Mat., Buenos Aires), for a 2-month visit to the Univ. of Zaragoza (Spain) and the Univ. of Turin (Italy).

Prof. F. Cukierman (Univ. of Kansas, USA), for a 3-month visit to the Univ. of Buenos Aires.

Prof. B. Kahn (Univ. Paris 7, France), for a one-month research visit to Vietnam (Hanoi, Hue, Ho Chi Minh).

6. Other Scientific Activities

International Commission on History of Mathematics - ICHM

In August of 1992 the ICHM co-sponsored an International Symposium in Beijing commemorating the 100th anniversaries of the births of Li Yan and Qian Bao-Cong – two of China's pioneering historians of mathematics. This meeting has received the endorsement of the IUHPS and the IMU.

The ICHM, will support *THE INTERNATIONAL CONGRESS OF HISTORY OF SCIENCES* to be held in Zaragoza, Spain, from August 22-29, 1993. Among events of particular interest to historians of mathematics, there will be a number of symposia organized or sponsored by the Commission with the cooperation of colleagues, as follows:

- Arts and Mathematics
- Islamic Mathematics: Theory and Practice
- Logics and the Foundations of Mathematics, 1885-1905
- Mathematics in Asia
- National Schools in the 19th and 20th Centuries
- Historiography of History of Mathematics

- New Edition of World Directory of Historians and ICHM Database

Periodically, the Commission updates its World Directory of Historians of Mathematics, the last edition of which was published as a Supplement and made available in time for the Berkeley International Congress of Mathematicians in 1986. Work on the new edition is underway.

In conjunction with the new World Directory, the International Commission on History of Mathematics also intends to compile a database of more detailed 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.

The ICHM Dictionary on History of Mathematics project edited by John Fauvel, continues to progress. It is to be published by Oxford University Press, probably in Oxford's "Companion" series, i.e. as a Companion to the History of Mathematics.

7. Publications

IMU published the Bulletin No.34, in 1992

ICMI published the Bulletins No. 32 and 33.

8. Organizational Matters

The Executive Committee of IMU met in Rio de Janeiro, on May 7-8, 1992.

9. Vital Statistics

51 members (countries)

15 conferences: 8 (IMU) + 6 (CDE) + 1 (ICMI) conferences supported

1 (IMU) + 2 (ICMI) bulletins; most conferences publish their proceedings.

REPORT ON CDE ACTIVITIES

1 9 9 2

Professor Pierre Bérard, Secretary

Following the lines of actions defined at the Grenoble meeting (April 1991), the CDE promoted the following programmes in 1992 :

Travel support to individual research visits

Support to Conferences

Support to Research Teams

Library Support

TRAVEL SUPPORT TO RESEARCH VISITS

The purpose of the programme "Travel Support to Individual Research Visits" is to give partial support (travel or living expenses) to mathematicians from developing countries who make a research visit to an advanced mathematical center or to mathematicians (from either a developing country or an advanced country) who make an extended visit to a research center in a developing country.

The following mathematicians have been supported within this programme. The CDE partially supported travel expenses while living expenses were taken care of by the inviting institutions. Scientific output consisted in lectures, scientific interaction and research work to be published. Scientific reports are to be sent to CDE upon completion of the research visit.

- Professor N.X. Tan (Institute of Mathematics Hanoi, Vietnam; nonlinear analysis) visited the University of Köln (Germany) for two months under an A. von Humboldt fellowship (January and February 1992); the CDE provided travel support (\$ 1,527) : UNESCO-ROSTSEA = \$ 1500; IMU = \$ 27.
- Professor A. Tarzia (Universidad Austral, Rosario, Argentina; applied PDEs) visited the Institute U. Dini in Florence (Italy) and the University Paris 6 in November 1991. He received partial travel support from the CDE (\$ 600 paid in 1992) : IMU = \$ 600.
- Professor S. Kabbaj (Université S.M. Ben Abdellah, Morocco; commutative algebra) visited the University of Rome "La Sapienza" and the University of Lyon I, July-August 1991. His travel expenses were partially supported by the CDE (\$ 566 paid in 1992) : UNESCO-ROSTA = \$ 500; IMU = \$ 66.

- Doctor G. Paternain (University of Montevideo, Uruguay; geometry and dynamical systems) is currently visiting the Max Planck Institute in Bonn (Germany); he received partial travel support (\$ 1010) : ICSU = \$ 1010.
- Professor G. Corach (Instituto Argentino de Matemática, Buenos Aires, Argentina; operator theory) visited the Banach center in Warsaw (Poland), the University of Zaragoza (Spain), the University of Turin (Italy) in April-May, 1992. He received \$ 1010 from the CDE as partial travel support : ICSU = \$ 1010.
- Professor J. Ndoutoune (Institut Africain d'Informatique, Libreville, Gabon; convex analysis) visited the Université de Limoges (France) for one month in June 1992; he also participated in an conference held at the CIRM (Centre International de Rencontres Mathématiques, Marseille, France). He received travel support (\$ 1000) from the CDE : UNESCO-ROSTA = \$ 1000.
- Professor N.T. Cuong (Mathematics Institute, Hanoi, Vietnam; singularity theory) visited the University of Köln (Germany) for one year under a H. Hertz fellowship (91-92). He received \$ 1000 as travel support from the CDE : UNESCO-ROSTSEA = \$ 1000; IMU = \$ 10.
- Professor F.M. Cukierman (University of Kansas, USA; algebraic geometry) visited the University of Buenos Aires for three months (summer 1992). He received partial travel support from CDE (\$ 1010) : ICSU = \$ 1010.
- Professor X.J. Tan (Peking University, Beijing, China; algebraic geometry) will visit the Tata Institute in Bombay (India) from March to August 1993; the CDE committed itself to supporting Prof. Tan's travel expenses up to \$ 1500 : UNESCO-ROSTSEA 1992 = \$ 1000; IMU up to \$ 500.
- Professor L.D. Muu (Mathematical Institute Hanoi, Vietnam; nonconvex optimization) visited the University of Trier (Germany), Oct.-Dec. 92; the CDE provided partial travel support (\$ 1250) : ICSU = \$ 1250.
- Professor K. Tamizhmani (University of Pondicherry, India; mathematical physics) will visit the Université de Lille (France), April-June 1993. The CDE committed itself to providing travel support (up to \$ 1500) : ICSU = \$ 1000; IMU up to \$ 500.
- Professor B. Kahn (Université Paris 7, France; K-theory) made a one month research visit to Vietnam (Hanoi, Hue, Ho Chi Minh). The CDE partially supported his travel expenses (\$ 1500) : ICSU = \$ 720; IMU = \$ 780.
- Professor S. Zhang (Peking University, Beijing, China; number theory) will visit the Isaac Newton Institute in Cambridge (Jan-March, 93) and the CDE committed

itself to giving partial travel support up to \$ 1500 : UNESCO-ROSTSEA 1992 = \$ 1000; IMU up to \$ 500.

- Doctor A. Osse (Université de Neuchatel, Switzerland; algebraic topology) will make a one month research visit at the Institut de Mathématiques et de Sciences Physiques in Porto-Novo (P.R. of Benin). He will participate in the Giraga IV conference and in the Symposium organized in January 1993 by the African Mathematical Union. The CDE committed itself to partially supporting Dr Osse's travel expenses up to \$ 1500 : UNESCO-ROSTA 1992 = \$ 1000; IMU = up to \$ 500.

SUPPORT TO CONFERENCES

The purpose of this programme is to provide financial support to academic activities of conferences organized in Developing Countries. The following conferences have been supported. Scientific and financial reports are to be sent to CDE upon completion of the conference.

- The Low Dimensional Topology Conference was held in Gokova (Turkey), May 24-31, 1992. The CDE provided support (\$3050) for travel expenses of invited speakers (Prof. Fintushel, Stern, Gompf, Casson, and Morgan) : ICSU = \$ 2000; IMU = \$ 1050. The scientific report and the letters of the invited speakers show that this conference has been a success.

- The International Conference on Functional Analysis and Global Analysis was held in Quezon City (The Philippines), October 5-9, 1992. The CDE provided \$ 2010 for the academic expenses of this conference : ICSU = \$ 1900; IMU = \$ 110. Scientific reported not yet received.

- The GIRAGA IV seminar (Groupe Inter-africain de Recherches en Analyse, Géométrie et Applications) will be held Dec. 8-18, 1992 in Porto-Novo (R.P. Benin). This conference received \$ 2000 from CDE to support scientific activities and travel expenses of invited speakers or participants from developing countries : ICSU = \$ 1000; UNESCO-ROSTA = \$ 500; IMU = \$ 500.

- The Congrès de Mathématiques Appliquées (Université de Oujda, Morocco) will be held April 22-25, 1993; the CDE committed itself to giving \$ 2000 to support academic activities of this conference : ICSU 1992 = \$ 2000.

- The International Conference on Applied Analysis (Hanoi University of Technology, Vietnam) will be held August 24-28, 1993; the CDE committed itself to giving \$ 2000 to support the academic activities of this conference : ICSU 1992 = \$ 2000.

- The SEACME (South East Asia Conference on Mathematical Education) will be held in Surabaya (Indonesia), June 7-11, 1993. The CDE committed itself to giving \$ 2000 to support travel expenses of invited speakers to this conference : ICSU 1992 = \$ 1000; UNESCO-ROSTSEA 1993 or IMU = \$ 1000.

SUPPORT TO RESEARCH TEAMS

In 1990 and 1991, the CDE supported a research team at FAMAF-National University in Cordoba (Argentina), working on representation theory (Prof. J. Tirão).

In 1992 the CDE supported a team in Hanoi Vietnam, working on topology and singularity theory (Prof. Le Van Thanh). The CDE committed itself to continue support to this team in 1993 (subject to scientific scanning by the CDE and availability of funds). CDE 1992 support \$ 3000 : ICSU 1992 = \$ 3000; CDE 1993 support \$ 3000 : ICSU 1992 = \$ 2000 and IMU = \$ 1000.

LIBRARY SUPPORT

The Annales de l'Institut Fourier have been induced to donate three almost complete collections and three subscriptions to beneficiaries to be chosen by the CDE.

The collections have been sent and the free subscriptions are being sent to mathematical centers (total cost for sending the collections : \$ 1451) :

- The Mathematical Centre in Abuja (Nigeria)
- The FAMAF at the National University in Cordoba (Argentina)
- The Mathematics Department in Hanoi University (Vietnam)

It is planned to induce other journals to donate collections and free subscriptions in the future.

Brief Report on ICMI activities in 1992

Prof. Morgen Niss, Secretary

1. Organisation

In 1992 *Chile and Iceland* – both member states of the IMU – joined ICMI by appointing National Representatives. Chile, furthermore, established a national sub-commission, called ICMI-Chile.

The General Assembly of ICMI held its quadriennial meeting in conjunction with ICME-7 (Université Laval, Québec) on Tuesday 18 August, 1992. Minutes of the General Assembly are published in ICMI Bulletin, No. 33, December 1992. Also at ICME-7 the Executive Committee met in three long sessions.

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 Organisation 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.

2. ICMEs

ICME-7 (The 7th International Congress on Mathematical Education) was held at Université Laval, Québec, Canada, 17-23 August 1992. More than 3300 delegates from more than 75 countries participated in the congress which was a great success. The Canadian and international organisers deserve high praise and deep gratitude from the international mathematics education community in general and from ICMI in particular.

At its meeting in April 1991, in Barcelona, the Executive Committee decided to accept Spain's bid to host *ICME-8* in Sevilla in July/August 1996. The International Programme Committee – to be chaired by Professor Claudi Alsina, Barcelona – was appointed by the EC in August 1992.

The EC has not yet received any bids to host *ICME-9* in the year 2000. At least two countries are known to be considering to submit bids.

3. ICMI Studies

The emphasis on mounting and conducting so-called ICMI studies on crucial themes and issues in mathematics education was continued in 1992. The study conference on *Assessment in Mathematics Education and Its Effects* (Calonge, Spain, April 1991) has resulted in two books edited by Mogens Niss and published by Kluwer Academic Publishers by the end of 1992 (publication year 1993), *Investigations into Assessment in Mathematics Education* (270 pages) and *Cases of Assessment in Mathematics Education* (220 pages).

Plans of different stages for future studies exist. A study conference on *Gender and Mathematics Education* will be held in Höör, Sweden 7-12 October 1993. It is based on a Discussion Document published officially in *l'Enseignement mathématique* 38, fasc. 1-2, janvier-juin 1992, pp 189-98 (as well as in the ICMI Bulletin, No. 32, 1992). A study on

What is Research in Mathematics Education and What are Its Results is under planning. A Discussion Document was published in ICMI Bulletin, No. 33, December 1992, and will appear officially in *l'Enseignement mathématique*, presumably in the first issue of 1993. A study conference will be held in the spring of 1994. It is ICMI's intention to present the outcomes of this study at the International Congress of Mathematicians, Zürich, August 1994.

Initial plans for studies on *geometry* and on the *history of mathematics* exist as well.

4. Regional Conferences

Financial support was given by ICMI to SEACME 6 (The 6th South East Asian Conference on Mathematical Education). The Executive Committee has decided to also sponsor a regional conference to be held in Shanghai in August 1994. Further proposals for regional conferences are being considered by the EC.

5. New initiatives

With great pleasure and enthusiasm the Executive Committee of ICMI has been involved in IMU's preliminary plans for the *World Mathematical Year 2000*. ICMI looks forward to participating further in the planning and realisation of this remarkable set of activities.

In his Opening Address at ICME-7 (see ICMI Bulletin, No. 33, December 1992), Miguel de Guzmán, President of ICMI, on behalf of the ICMI EC focused on the needs for international solidarity in mathematics education and outlined a *Solidarity Programme* to accommodate these needs. This proposal received strong support by the General Assembly of ICMI.

As a first step in mounting such a programme the EC has decided to establish 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. If and when the Solidarity Fund grows to a fair size it will be administered by a separate body. Until then funds will be in charge of a committee chaired by Professor Jean-Pierre Kahane, Past-President of ICMI and with administrative assistance from the ICMI Secretariat.

6. ICMI Bulletins

In 1992 ICMI Bulletins No. 32 (June) and 33 (December) were published under the editorship of the Secretary of ICMI.

REPORT ON ICHM ACTIVITIES FOR 1992
International Commission on the History of Mathematics

Professor Joseph Dauben, Chairman

Professor Kirsti Andersen, Secretary

E X C E R P T S

ICHM AND ZARAGOZA CONGRESS - 1993

Zaragoza – The XIXth International Congress of History of Science will be held in Zaragoza, Spain, from August 22-29, 1993. Professor Mariano Hormigoán, Chairman of the Organizing Committee, and Professor Jean Dhombres, Chairman of the Programme Committee, have been working diligently to assure that next year's meeting will be a challenging one, with many special symposia, lectures and other events to provide a productive and memorable Congress in Spain. Among events of particular interest to historians of mathematics will be a number of symposia organized or sponsored by the Commission with the cooperation of colleagues as follows:

”Arts and Mathematics” (Kirsti Andersen, Eberhard Knobloch)

”Islamic Mathematics: Theory and Practice” (A. Djebbar, Jan Hogendijk)

”Logics and the Foundations of Mathematics, 1885-1905” (Ivor Grattan-Guinness, Francisco Rodriguez-Consuegra)

”Mathematics in Asia” (Karine Chemla, Liu Dun, Chikara Sasaki)

”National Schools in the 19th and 20th Centuries” (Serguei Demidov, Mariano Hormigoán)

”Historiography of History of Mathematics” (Joseph Dauben, Christoph Scriba)

CONGRESS DEADLINES:

Anyone wishing to present a paper or submit a poster must register before November 30, 1992. Reduced registration fees will be available for 25,000 Pesetas or US\$ 275.00 until February 28, 1993; thereafter, the basic registration fee will be 30,000 Pesetas or US\$ 325.00. For information about student fees and rates for accompanying persons, please write to Professor Hormigoán, at the address given below.

GRANTS:

Individuals who wish to apply for grants to help defray their anticipated costs to attend the Congress (including registration fee, transportation and living expenses in Zaragoza) should send a copy of their curriculum vitae, specifying the kind and amount of support that is needed, to:

Professor Mariano Hormigoán, Chairman
XIXth International Congress of History of Science
Facultad de Ciencias (Matemáticas)
Ciudad Universitaria, 50009 Zaragoza, Spain
FAX: 76-565852 – E-MAIL: ICHS@UNIZAR.ES

BEIJING INTERNATIONAL COLLOQUIUM ON HISTORY OF MATHEMATICS

Beijing– In August of 1992 the ICHM co-sponsored an International Symposium in Beijing commemorating the 100th anniversaries of the births of Li Yan and Qian Bao-Cong – two of China's pioneering historians of mathematics. This meeting has also received the endorsement of the IUHPS and the IMU, and both have generously agreed to help support the Beijing meeting with separate grants.

LUNCHEON AND SPECIAL SYMPOSIUM: 20 YEARS OF HISTORIA MATHEMATICA

Washington–1992 marks the 20th anniversary of the founding of *Historia Mathematica*, the quarterly journal published by the International Commission on History of Mathematics and Academic Press. Launched by Kenneth O. May at the University of Toronto as an informal Newsletter in 1972, *Historia Mathematica* has been honored during the Annual Meeting of the History of Science Society with a special luncheon on Tuesday, December 29.

CRITICAL PROBLEMS: HISTORY OF MATHEMATICS

As part of the HSS Annual Meeting Program, the ICHM has sponsored a special afternoon session (on Monday, December 28) devoted to "Critical Problems in History of Mathematics." This round-table symposium was intended to continue a discussion on mathematics begun at last year's Annual Meeting devoted to Critical Problems in History of Science.

LONDON SYMPOSIUM

London – The ICHM will co-sponsor an International Symposium on the History of Modern Mathematics, being organized by the London Mathematical Society, to be held in 1994. According to Symposium organizers, attention will concentrate on the history of mathematics in the 19th and early 20th centuries. Participants will be asked to focus their presentations on a limited number of concerns that, taken together, shall form the subject of the symposium. Anyone interested in more detailed, preliminary information about plans being made for this meeting should contact Dr. Jeremy Gray, Faculty of Mathematics, The Open University, Walton Hall, Milton Keynes, MK7 6AA, England.

MAY MEDAL: TO BE STRUCK IN TORONTO

Toronto– The International Commission, with the cooperation of the Kenneth O. May Committee at the University of Toronto, has commissioned Saul Jaskusz, a Canadian sculptor, to cast the Kenneth O. May medal, which was first awarded jointly to Dirk Struik and A.P. Youschkevitch in 1989.

The award, commemorating the first Chairman of the Commission and founding Editor of *Historia Mathematica*, is intended to acknowledge significant contributions to the history of mathematics.

The ICHM Executive Committee has established an Endowment Fund. In order to help support the Kenneth O. May Prize, anyone wishing to support the work of the Commission while honoring the memory of K.O. May, is invited to contribute. Donations in any amount will be greatly appreciated. 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. For further information about the Prize, or to make a contribution to the fund (checks should be made payable to the International Commission on History of Mathematics, May Fund), please write to the Commission's Treasurer, Menso Folkerts, Director, Institut für Geschichte der Naturwissenschaften, Deutsches Museum, Postfach 260102, D-8000 München 26, Germany.

NEW EDITION OF WORLD DIRECTORY OF HISTORIANS OF MATHEMATICS AND ICHM DATABASE

Periodically, the Commission updates its World Directory of Historians of Mathematics, the last edition of which was published as a Supplement and made available in time for the Berkeley International Congress in 1986. Work on the new edition is underway as the old guide is now quite out of date and will be entirely revised.

In conjunction with the new World Directory, the International Commission also intends to compile a database of more detailed information about historians of mathematics around the world. This will include both biographical and bibliographic information, as well as photographs (see details of the photo archive project, below) 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. The photo archive would include negatives, prints and slides, along with a database of known pictures, including a brief description of each known representation, its provenance and availability. The Commission eventually hopes to produce an Album of Mathematicians, suitable for publication, featuring a selection of these pictures with commentary. Historians of Mathematics with photographs to contribute to the photo archive, or wishing more information about the project in Leipzig, should contact Dr. Hans-Joachim Ilgands, Karl- Sudhoff-Institute, Leipzig University, Leipzig, Germany.

ICHM DICTIONARY ON HISTORY OF MATHEMATICS

The Dictionary project edited by John Fauvel continues to progress. It is to be published by Oxford University Press, probably in Oxford's "Companion" series, i.e. as a companion to the History of Mathematics. There are still quite a few entries unallocated for which help from the historical community would be very much appreciated. Anyone interested in the progress of the project or in participating by writing entries should contact John Fauvel (Mathematics Faculty, The Open University, Milton Keynes MK7 6AA, England).

THANKS TO THE IUHPS/DHS

The Executive Committee of the International Union of the History and Philosophy of Science/ Division of History of Science has been generous in funding basic administrative costs of the Commission's operations each year, and the International Commission on History of Mathematics wishes to record its appreciation for this continuing support of the Commission's activities. It also wishes to thank both the IUHPS/DHS and the International Mathematicians Union for their generous joint support of recent international meetings which the Commission has sponsored, as well as several currently being planned.

STATEMENT OF INCOME AND EXPENDITURE - 1991

<u>I N C O M E</u>	BUDGET	ACTUAL
	CHF	CHF
MEMBERSHIP	187.000,00	181.739,35
ICSU SUBVENTION	20.000,00	27.599,18
SALES OF W.D.M.	12.500,00	13.376,93
SPECIAL DEVELOPMENT FUND	15.000,00	35.643,51
INTEREST ON BANK ACCOUNTS	3.500,00	30.923,31
OTHER	-	3.474,93
T O T A L	<u>238.000,00</u>	<u>292.757,21</u>
 <u>E X P E N D I T U R E</u>		
SCHEDULE A:		
SECRETARIAL HELP, IMU OFFICE	19.400,00	563,80
SECRETARIAL HELP, PRESIDENT	2.000,00	-
ICMI	10.000,00	10.000,00
CDE	5.500,00	11.000,00
CTS	600,00	499,60
OFFICE EXPENSES	7.500,00	2.914,81
TRAVEL EXPENSES OF THE E.C.	25.000,00	24.470,78
PRESIDENT AND SEC. EXPENSES	2.000,00	2.025,31
CONTRIBUTION TO ICSU	5.000,00	4.298,25
IMU BULLETIN	2.000,00	-
AUDIT FEE	2.000,00	704,75
GENERAL ASSEMBLY 1994	3.500,00	3.500,00
WORLD DIRECTORY OF MATHEMATICIANS	18.000,00	18.000,00
CONTINGENCIES	2.000,00	711,10
BANK CHARGES	-	436,18
SUB-TOTAL	<u>104.500,00</u>	<u>79.124,58</u>
SCHEDULE B:		
SYMPOSIA, CONFERENCES, IMU LECTURES	56.000,00	63.000,00
ICMI SCIENTIFIC ACTIVITIES	18.000,00	18.000,00
CDE SCIENTIFIC ACTIVITIES	15.000,00	41.667,38
PROGRAM COMMITTEE FOR ICM 1994	5.500,00	-
TRAVEL GRANTS	15.000,00	15.000,00
SUBVENTION TO ICM 1994	24.000,00	-
T O T A L	<u>133.500,00</u>	<u>137.667,38</u>
T O T A L	<u>238.000,00</u>	<u>216.791,96</u>

INTERNATIONAL MATHEMATICAL UNION

Rio de Janeiro, April 14, 1992

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, 1991. 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 February 17, 1992. 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.

2 - Income

The total of contributions from national members was US\$ 129.697,34. The number of members having unpaid dues, has grown up in 1991. However, the total amount of unpaid dues has decreased from US\$ 50.048 by December 31, 1990, to US\$ 33.245 by December 31, 1991.

3 - Sales of Publications

The income of the editions of the World Directory of Mathematicians was US\$ 9.354,50. These editions have been sold in the year 1991, according to the Statement of the American Mathematical Society.

4 - Expenditure

The Statement of Income and Expenditure includes loss on exchanges for the year 1991 in the amount of US\$ 50.399,63.

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, 1991, in accordance with the Fundamental Principles of Accounting.


Alexandre Maria de Oliveira

Autorised Independent Accountant

CRC - R.J. P/14.350/92

INTERNATIONAL MATHEMATICAL UNION - IMU
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1991

I. INCOME	NOTES	US DOLLARS
Grant from ICSU Fund and Sp. Contributions		-
Allocation from Unesco Subvention to ICSU		18.000,00
Unesco Contracts		-
Contributions from National Members	1	129.697,34
Contributions from Scientific Members		-
Special Contributions		25.283,30
Contracts		-
Sales of Publications, Royalties		9.354,50
Sales of scientific materials		-
Bank interest		21.004,47
Gain on Exchange		-
Other Income		2.736,16
T O T A L I N C O M E		<u>206.075,77</u>
II. EXPENDITURE		
A) SCIENTIFIC ACTIVITIES		
General Assembly		2.447,55
Scient. Meetings: Symposia/Colloquia/Working Groups, etc		61.509,63
Representation at Scientific Meetings		-
Data Gathering/Processing		-
Research projects		-
Grants to Individuals/Organizations	2	48.877,84
Other		-
LESS COVERED BY UNESCO CONTRACT		
ROUTINE MEETINGS		
Bureau/executive Committee		18.848,83
Other		485,41
PUBLICATIONS	3	12.587,41
B) OTHER ACTIVITIES		
Contribution to ICSU		2.988,00
Contributions to other ICSU bodies		393,38
SCOSTED, COBIOTECH, FAGS, (ETC)		-
Activities covered by Unesco Contracts		-
ADMINISTRATIVE EXPENSES:		
Salaries and Related Charges		-
General Office Expenses		2.061,94
Office Equipment		-
Audit Fees		500,00
Bank charges		325,02
Loss on exchange		50.399,63
T O T A L E X P E N D I T U R E		<u>201.424,64</u>
EXCESS OF INCOME OVER EXPENDITURE		4.651,13
OR EXCESS OF EXPENDITURE OVER INCOME		-
ACCUMULATED BALANCE AT 1, JANUARY, 1991		405.548,65
ACCUMULATED BALANCE AT 31 DECEMBER 1991		410.199,78

BALANCE SHEET AT DECEMBER 31, 1991

ASSETS	NOTES	1 9 9 1		1 9 9 0
Bank Accounts and cash	4			
Cash				1.671
Current accounts		282.993	255.743	
Deposit accounts		<u>169.845</u>	<u>176.794</u>	432.537
Prepayments	5		7.692	7.692
Receivable			<u>12.120</u>	<u>2.766</u>
 TOTAL ASSETS			472.650	444.666
 LESS: LIABILITIES	6			
Creditors and accruals			10.526	12.716
			<u>462.124</u>	<u>431.950</u>
			=====	=====
 ACCUMULATED FUNDS	7			
General Fund				
Balance at December 31, 1990		405.548	250.576	
Excess of Income Over Expenditure		<u>4.651</u>	410.199	<u>154.972</u>
Balance at December 31, 1991				405.548
		TRANSFER	410.199	405.548

	TRANSFER	410.199	405.548
Special Development Fund	7		
Balance at December 31, 1990	26.402		36.281
Interest	-		1.088
Income	-		24.252
Travel Grants	-		(35.219)
Prevision to ICM 94	<u>10.489</u>	36.891	<u>-</u> 26.402
General Assembly Fund			
Balance at December 31, 1990	0		11.177
General Assembly 1990	-		2.362
To Special Development Fund	-		(13.539)
Prevision to General Assembly 1994	<u>2.447</u>		<u>-</u>
Balance at December 31, 1991		2.447	0
World Directory of Mathematicians Fund			
Balance at December 31, 1990	0		34.439
World Directory, IX ed.	-		-
World Directory IX ed. printing expenses	-		(34.439)
Prevision to W.D.M.	<u>12.587</u>		<u>-</u>
Balance at December 31, 1991		12.587	0
		<u>462.124</u>	<u>431.950</u>
		=====	=====


 JOSE LUIS DIAZ FLORES
 TECNICO EN CONTABILIDAD-DE
 CHC-141.026648

INTERNATIONAL MATHEMATICAL UNION

1. STATEMENT OF CONTRIBUTIONS RECEIVED FROM MEMBERS DURING THE YEAR ENDED DECEMBER 31, 1991

MEMBER	PRE 1991	1 9 9 1	T O T A L
Argentina	1.527	-	
Australia		3.465	
Austria		1.679	
Belgium		2.993	
Brazil	2.631	2.631	
Canada		5.878	
Chile	2.197	286	
China-Chinese Math.Soc.		3.077	
Czechoslovakia		3.034	
Denmark		1.477	
Finland		1.392	
France		7.534	
Germany D.R.	7.874	7.586	
Hungary		3.077	
Iceland	658	724	
Hong Kong	2.290	-	
Iran		748	
Ireland	1.379	-	
Israel		3.359	
India	3.149	-	
Italy		5.238	
Japan		7.534	
Korea Rep.		840	
Netherlands		3.355	
New Zealand		840	
Norway		724	
Philippines	746	-	
Portugal		840	
Poland		3.150	
Romania	680	724	
South Africa		1.732	
Spain		2.993	
Sweden		2.839	
Switzerland		3.014	
Turkey		758	
United Kingdom		8.661	
U.S.A.		7.483	
U.S.S.R.		6.897	
	<hr/>	<hr/>	<hr/>
	23.131	106.566	129.697

2. GRANTS TO INDIVIDUALS/ORGANIZATIONS

C. D. E.	18.464
I.C.M.I.	12.413
C.D.E / I.M.U.	18.000
	<u>48.877</u>

3. PUBLICATIONS

Publications expenditure is made us as follows:

	1991	1990
IMU Bulletin	-	2.388
World Directory of Mathematicians	12.587	4.522
	<u>12.587</u>	<u>7.410</u>

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

				<u>1 9 9 1</u>		<u>1 9 9 0</u>	
4. BANKS AND CHASH							
The amount held with banks in made up as follows				Currency	USD	Currency	USD
				<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>
Cash	FINLAND	FIM		-	-	5.999	1.671
Credit Swiss	SWITZERLAND						
- Current Account		FS		168.197	117.620	126.067	99.265
Kansallis-Osakke-Pankki	FINLAND	FS		70.072	49.001	44.887	35.344
Kansallis-Osakke-Pankki	FINLAND						
- Deposit account (Reserve)		FS		242.878	169.845	224.528	176.794
- Longterm account		FS		166.412	116.372	153.840	121.134
				<u>=====</u>	<u>-----</u>	<u>=====</u>	<u>-----</u>
					452.838		434.208
					<u>=====</u>		<u>=====</u>

5. PREPAYMENTS

BALANCE 31.12.90		7.692
		<u>7.692</u>

6. CREDITORS AND ACCRUALS

BALANCE 31.12.90	12.716	
PAYMENTS	<u>2.190</u>	<u>10.526</u>

7. FUNDS

These funds represent the amounts set aside to cover the following

Provided in year ended	1991 General Fund	1991 General Assembly	1991 World Directory	1991 Special Development Fund
General Fund				
Balance 31.12.90	405.548			
Transfer from the income of expenditure over excess	4.651			
Special Development Fund				
Balance 31.12.90				26.402
Prevision to ICM 94				10.489
General Assembly Fund				
Balance 31.12.90		0		
Prevision to General Assembly 1994		2.447		
World Directory of Mathematicians Fund				
Balance 31.12.90			0	
Prevision to W.D.M.			12.587	
	410.199	2.447	12.587	36.891

**STATEMENT OF INCOME AND EXPENDITURE:
FINANCIAL YEARS 1990 AND 1991 COMPARED**

INCOME	1991		1990	
Grant from ICSU to SDF	-		10.000	
Allocation from UNESCO grant to ICSU	18.000		10.606	
Contribution from Members	129.697		119.510	
Special Contributions	25.283		34.726	
Sale of Publications	9.355		2.052	
Bank interest	21.004		20.950	
Gain on exchange	-		85.711	
Other income	2.736	206.075	-	283.555
	<u> </u>		<u> </u>	
EXPENDITURE				
A. MEETINGS				
Executive Committee meetings	18.849		31.020	
Other	485		-	
Program Committee	-		354	
General Assembly	2.447	21.781	2.362	33.736
	<u> </u>		<u> </u>	
B. PUBLICATIONS		12.587		7.410
C. SCIENTIFIC ACTIVITIES				
ICMI	13.392		10.067	
CDE	28.067		6.213	
Travel Grants	10.489		44.726	
Conferences	43.142	95.090	-	61.006
	<u> </u>		<u> </u>	

D. ADMINISTRATIVE EXPENSES

Contribution to ICSU	2.988		2.300	
Grant to CTS	400		400	
Grant to ICMI	6.896		6.040	
Grant to CDE	8.396		3.356	
Audit fees	500		1.253	
General office expenses	2.061		11.833	
Bank charges	325		1.248	
Loss on exchange	50.400	71.966	-	26.430
		<u>201.424</u>		<u>128.582</u>
		=====		=====
		4.651		154.973

EXCESS OF INCOME OVER EXPENDITURE

Allocated to:				
General Fund	4.651	(4.651)	154.973	(154.973)
		=====		=====

INTERNATIONAL MATHEMATICAL UNION

DUES ARREAS AS FOR JANUARY 1, 1992

MEMBER	DUES (Swiss Francs)	YEAR(s)	USD
Argentina	4.200	1991, 1989	2.937
Brazil	400	1991-part	279
Bulgaria	2.200	1991	1.538
Cameroon	1.100	1991	769
China-Math.Soc.Taipei	1.100	1991	769
Cuba	1.100	1991	769
Egypt	1.100	1991	769
Greece	1.100	1991	769
Hong Kong	1.100	1991	769
India	4.400	1991	3.076
Ivory Coast	1.100	1991	769
Ireland	2.200	1991	1.538
Korea D.P.R.	1.100	1991	769
Mexico	4.100	1991, 90, 89, 88	2.867
Nigeria	2.100	1991, 1990	1.468
Philippines	1.100	1991	769
Poland	8.400	1991-part, 89, 88	5.874
Romania	2.000	1989, 1988	1.398
Singapore	1.100	1991	769
Vietnam	1.100	1991	769
Yugoslavia	5.450	1991, 90, 89, 88	3.811
			<hr/> 33.245 <hr/>

1 USD = 1.43 SFR = DECEMBER 31, 1991

CDE-IMU EXPENSES 1991

<u>DATE</u>	<u>DESCRIPTION</u>	<u>PAYMENT</u>	<u>DEPOSIT</u>	<u>BALANCE</u>
31/12/90	Balance			15,852.79
30/01/91	UNESCO 90 (B)		1,000.00	16,852.79
15/02/91	Wire-CNFM (A-B)	1,472.96		15,379.83
This includes payment of secretarial expenses on Schedule A for US\$ 400.00 and travel expenses for Nguyen to Nhu, on Schedule B, for US\$ 1,072.96				
01/03/91	Wire-CNFM (A)	5,025.00		10,354.83
This is for Schedule A expenses: CDE meeting held in Grenoble on April 5th, 1991; from this amount remain FRF 6,652,47 in account in France				
18/03/91	Grunbaum-CDE-meeting-0591 (A)	1,042.00		9,312.83
22/03/91	IMU-Schedule (A)-Contr(91-92)		7,656.00	16,968.83
25/03/91	Kuku-CDE-meeting-0591 (A)	1,010.00		15,958.83
23/04/91	Camacho-CDE-meeting-0591 (A)	1,570.00		14,388.83
Payments for Grunbaum, Kuku, Camacho are for travel expenses to attend the CDE meeting held in Grenoble; these are Schedule A expenses.				
14/05/91	Seddighi (B)	1,000.00		13,388.83
21/05/91	Mahmoodian (B)	1,500.00		11,888.83
30/05/91	IMU-Schedule B (91)		10,233.00	22,121.83
03/06/91	Dinh-van-Huynh (B)	1,250.00		20,871.83
15/07/91	Ser-Peow-Tan (B)	1,000.00		19,871.83
24/07/91	Wire-never-charged		8.00	19,879.83
18/09/91	Alcantara-Bode (B)	1,500.00		18,379.83
18/09/91	Tirao (B)	3,035.88		15,343.95
This is CDE's 91-support to Cordoba Team				
18/09/91	Muruganandam (B)	1,000.00		14,343.95
This support had been promised by the former CDE				
23/09/91	ICSU - 1991 (B)		17,985.00	32,328.95
23/09/91	Burstall (B)	2,000		30,328.95
This is CDE's support to the Workshop on the Topology of Gauge Fields, Campinas, April, 91				
11/10/91	MSJ-support-to-CDE (B)		1,137.22	31,466.17
15/10/91	Markarian (B)	1,500.00		29,966.17

OBS: (A) refers to Schedule A funds (administrative expenses)

(B) refers to Schedule B funds (academic expenses)

STATEMENT OF INCOME AND EXPENDITURE - 1992

I N C O M E	BUDGET	ACTUAL
MEMBERSHIP	187.000,00	168.653,14
ICSU SUBVENTION	20.000,00	27.521,68
SALES OF W.D.M.	12.500,00	8.722,08
SPECIAL DEVELOPMENT FUND	15.000,00	64.283,43
INTEREST ON BANK ACCOUNTS	3.500,00	28.661,51
OTHER	-	5.000,00
T O T A L	<u>238.000,00</u>	<u>302.841,84</u>

E X P E N D I T U R E

SCHEDULE A:

SECRETARIAL HELP, IMU OFFICE	19.400,00	10.826,25
SECRETARIAL HELP, PRESIDENT	2.000,00	2.152,00
ICMI	10.000,00	10.000,00
CDE	5.500,00	-
CTS	600,00	596,40
OFFICE EXPENSES	7.500,00	4.926,75
TRAVEL EXPENSES OF THE E.C.	25.000,00	22.990,95
PRESIDENT AND SEC. EXPENSES	2.000,00	-
CONTRIBUTION TO ICSU	5.000,00	4.930,10
IMU BULLETIN	2.000,00	-
AUDIT FEE	2.000,00	2.965,75
GENERAL ASSEMBLY 1994	3.500,00	3.500,00
WORLD DIRECTORY OF MATHEMATICIANS	18.000,00	18.000,00
CONTINGENCIES	2.000,00	-
BANK CHARGES	-	546,09
SUB-TOTAL	<u>104.500,00</u>	<u>81.434,29</u>

SCHEDULE B:

SYMPOSIA, CONFERENCE, IMU LECTURES:	56.000,00	32.915,75
ICMI SCIENTIFIC ACTIVITIES	18.000,00	18.000,00
CDE SCIENTIFIC ACTIVITIES	15.000,00	42.538,83
PROGRAM COMMITTEE FOR ICM 1994	5.500,00	3.540,50
TRAVEL GRANTS	15.000,00	15.000,00
SUBVENTION TO ICM 1994	24.000,00	-
T O T A L	<u>133.500,00</u>	<u>111.995,08</u>
T O T A L	<u>238.000,00</u>	<u>193.429,37</u>

Rio de Janeiro, March 24, 1993

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, 1992. 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 16, 1992. 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.

2 - Income

The total of contributions from national members was US\$ 120.603,89. The number of members having unpaid dues, has not grown up in 1992. However, the total amount of unpaid dues has increased from US\$ 33.245 by December 31, 1991, to US\$ 49.917 by December 31, 1992.

3 - Sales of Publications

The income of the editions of the World Directory of Mathematicians was US\$ 6.057,00. These editions have been sold in the year 1992, according to the statement of the American Mathematical Society.

4 - Expenditure

The Statement of Income and Expenditure includes loss on exchanges for the year 1992 in the amount of US\$ 18.063,73.

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, 1992, in accordance with the Fundamental Principles of Accounting.


Alexandre Maria de Oliveira

Autórised Independent Accountant

CRC - R.J. P/14.350/92

**INTERNATIONAL MATHEMATICAL UNION - IMU
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1992**

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	120.603,89
Contributions from Scientific Members		-
Special Contributions		47.898,69
Contracts		-
Sales of Publications, Royalties		6.057,00
Sales of scientific materials		-
Bank interest		20.136,59
Gain on Exchange		13.326,51
Other Income		-
T O T A L I N C O M E		<u>228.922,68</u>
II. EXPENDITURE		
A) SCIENTIFIC ACTIVITIES		
General Assembly		2.430,56
Scient.Meetings: Symposia/Colloquia/Working Groups, etc		34.855,74
Representation at Scientific Meetings		-
Data Gathering/Processing		-
Research projects		-
Grants to Individuals/Organizations	2	44.344,18
Other		-
LESS COVERED BY UNESCO CONTRACT		-
ROUTINE MEETINGS		-
Bureau/executive Committee		18.130,93
Other		-
PUBLICATIONS	3	12.500,00
B) OTHER ACTIVITIES		
Contribution to ICSU		3.242,43
Contributions to other ICSU bodies		7.128,47
SCOSTED, COBIOTECH, FAGS, (ETC)		-
Activities covered by Unesco Contracts		-
ADMINISTRATIVE EXPENSES:		
Salaries and Related Charges		5.100,00
General Office Expenses		5.308,94
Office Equipment		2.275,00
Audit Fees		2.000,00
Bank charges		380,71
Loss on exchange		18.063,73
T O T A L E X P E N D I T U R E		<u>155.760,69</u>
EXCESS OF INCOME OVER EXPENDITURE		73.161,99
OR EXCESS OF EXPENDITURE OVER INCOME		-
ACCUMULATED BALANCE AT 1, JANUARY, 1991		410.199,78
ACCUMULATED BALANCE AT 31 DECEMBER 1992		483.361,77

INTERNATIONAL MATHEMATICAL UNION

1. STATEMENT OF CONTRIBUTIONS RECEIVED FROM MEMBERS DURING THE YEAR ENDED DECEMBER 31, 1992

MEMBER	PRE 1992	1 9 9 2	T O T A L
Argentina	1.476,51	-	
Australia	-	2.953,02	
Austria	-	1.447,37	
Belgium	-	3.492,06	
* Brazil	317,46	6.984,13	
Bulgaria	694,44	-	
Canada	-	5.065,79	
Chile	-	1.344,39	
China, Taiwan	1.476,51	-	
Czechoslovakia	-	2.953,02	
Denmark	-	1.666,67	
Egypt	814,81	-	
Finland	-	1.447,37	
France	-	8.430,66	
Germany	-	7.382,55	
Greece	769,23	802,92	
Hungary	-	3.211,68	
Iceland	-	723,68	
Ireland	1.476,51	-	
Hong Kong	814,81	802,92	
Italy	-	5.347,22	
India	3.211,68	3.055,56	
Japan	-	8.029,20	
Korea, Rep.of	-	802,92	
Mexico	2.751,68	873,02	
Netherlands	-	2.894,74	
New Zealand	-	738,26	
Norway	-	802,92	
Philippines	-	763,89	
Portugal	-	802,92	
* Poland	-	6.466,41	
Romania	-	802,92	
Royal Society	-	8.148,15	
Sweden	-	3.211,68	
South Africa	-	1.476,51	
Singapore	763,88	763,89	
Switzerland	-	3.211,68	
Turkey	-	802,92	
USA	-	8.333,33	
	<hr/>	<hr/>	<hr/>
	14.567,52	106.036,37	120.603,89

* Brazil and Poland have paid for the years 1992 and 1993

BALANCE SHEET AT DECEMBER 31, 1992

	NOTES	1 9 9 2	1 9 9 1
ASSETS			
Bank Accounts and cash	4		
Cash		-	-
Current accounts		174.700	282.993
Deposit accounts		<u>381.944</u>	<u>452.838</u>
Prepayments	5	7.692	7.692
Receivable		<u>8.822</u>	<u>12.120</u>
TOTAL ASSETS		573.158	472.650
LESS: Liabilities			
Creditors and accruals	6	<u>12.526</u>	<u>10.526</u>
		<u>560.632</u>	<u>462.124</u>
ACCUMULATED FUNDS			
General Fund	7		
Balance at December 31, 1991		410.199	405.548
Excess of Income over Expenditure		73.162	<u>4.651</u>
		483.361	410.199
		TRANSFER	
		483.361	410.199

	TRANSFER	483.361		410.199
Special Development Fund				
Balance at December 31, 1991		36.891	26.402	
Prevision to ICM 94		<u>10.416</u>	<u>10.489</u>	36.891
General Assembly Fund				
Balance at December 31, 1991		2.447	-	
Prevision to General Assembly 1994		<u>2.430</u>	<u>2.447</u>	2.447
World Directory of Mathematicians Fund				
Balance at December 31, 1991		12.587	-	
Prevision to W.D.M.		<u>12.500</u>	<u>12.587</u>	<u>12.587</u>
			<u>560.632</u>	<u>462.124</u>


 JOSÉ LUIZ DIAS PERES
 TÉCNICO EM CONTABILIDADE
 CRC - RJ, 022614-8

2. GRANTS TO INDIVIDUALS/ORGANIZATIONS

I.C.M.I.	12.080
C.D.E./I.M.U.	11.364
C.D.E.	<u>20.900</u>
	44.344

3. PUBLICATIONS

	1992	1991
World Directory of Mathematicians	<u>12.500</u>	<u>12.587</u>
	12.500	12.587

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

		<u>1 9 9 2</u>		<u>1 9 9 1</u>	
The amount held with banks is made up as follows		<u>Currency</u>	<u>USD</u>	<u>Currency</u>	<u>USD</u>
Credit Swiss	Switzerland				
- Current Account		FS 171.323	118.974	168.197	117.620
- Deposit Account		FS 550.000	381.944	-	-
Kansallis Osakke Pankki	Finland				
- Current Account		FS 80.245	55.726	70.072	49.001
- Deposit Account		FS -	-	242.878	169.845
- Longterm Account		FS -	-	166.412	<u>116.372</u>
			<u>556.644</u>		<u>452.838</u>

5. PREPAYMENTS

Balance 31.12.91		<u>7.692</u>
		7.692

6. CREDITORS AND ACCRUALS

Balance 31.12.91	10.526	
Audit Fee 1992	1.000	
Accountant 1992	<u>1.000</u>	<u><u><u>12.526</u></u></u>

7. FUNDS

These funds represent the amounts set aside to cover the following

Provided in Year ended	1992 General Fund	1992 General Assembly	1992 World Directory	1992 Special Development Fund
General Fund				
Balance 31.12.91	410.199			
Transfer from the income of expenditure over excess	73.162			
Special Development Fund				
Balance 31.12.91				36.891
Prevision to ICM 94				10.416
General Assembly Fund				
Balance 31.12.91		2.447		
Prevision to General Assembly 94		2.430		
World Directory of Mathematicians Fund				
Balance 31.12.91			12.587	
Prevision to W.D.M.			<u>12.500</u>	
	<u>483.361</u>	<u>4.877</u>	<u>25.087</u>	<u>47.307</u>

**STATEMENT OF INCOME AND EXPENDITURE:
FINANCIAL YEARS 1991 AND 1992 COMPARED**

INCOME	1992		1991	
Allocation from Unesco grant to ICSU	20.900		18.000	
Contributions from National Members	120.604		129.697	
Special Contributions	47.898		25.283	
Sale of Publications	6.057		9.355	
Bank Interest	20.137		21.004	
Gain on Exchange	13.326		-	
Other Income	<u>-</u>	228.922	<u>2.736</u>	206.075
EXPENDITURE				
A. MEETINGS				
Executive Committee meetings	15.470		18.849	
Other	-		485	
Program Committee	2.660		-	
General Assembly	<u>2.431</u>	20.561	<u>2.447</u>	21.781
B. PUBLICATIONS		12.500		12.587
C. SCIENTIFIC ACTIVITIES				
I.C.M.I	12.080		13.392	
C.D.E.	20.900		28.067	
Travel Grants	10.416		10.489	
Conferences	<u>24.440</u>	67.836	43.142	95.090

D. ADMISTRATIVE EXPENSES	1 9 9 2		1 9 9 1	
Contribution to ICSU	3.242		2.988	
Grant to CTS	417		400	
Grant to ICMI	6.711		6.896	
Grant to CDE	11.364		8.396	
Audit Fees	2.000		500	
Salaries and related charges	5.100		-	
General office expenses	5.309		2.061	
Office Equipment	2.275		-	
Bank charges	381		325	
Loss on exchange	18.064	<u>54.863</u>	<u>50.400</u>	<u>71.966</u>
		<u><u>155.760</u></u>		<u><u>201.424</u></u>
EXCESS OF INCOME OVER EXPENDITURE		67.105		4.651
Allocated to:				
General Fund	67.105	(67.105)	4.651	(4.651)

INTERNATIONAL MATHEMATICAL UNION

DUES ARREAS AS FOR JANUARY 1, 1993

COUNTRY MEMBER	DUES (SWISS FRANCS)	YEAR(s)	U S \$
Argentina	4.200	1989/92	2.916
Bulgaria	3.400	1991/92	2.361
Cameron	2.200	1991/92	1.528
China - Beijing	4.400	1992	3.055
China - Taiwan	2.200	1992	1.528
Cuba	2.200	1991/1992	1.528
Egypt	1.100	1992	764
Iran	1.100	1992	764
Ireland	2.200	1992	1.528
Israel	4.400	1992	3.055
Ivory Coast	2.200	1991/92	1.528
Dem.Rep.of Korea	2.200	1991/92	1.528
Nigeria	3.200	1990/91/92	2.222
Philippines	1.100	1991	764
Poland	8.400	89/88/91 (part)	5.833
Romania	2.000	1988/89	1.389
Spain	4.400	1992	3.055
USSR	11.000	1992	7.639
Vietnam	2.200	1991/92	1.528
Yugoslavia	7.650	1988 to 1992	5.312
Venezuela	1.100	1992	764
			<hr/>
			50.589

1 US\$ = CHF 1,44 - December 31, 1992

FINANCIAL STATEMENT CDE 1992

FUNDS AVAILABLE

Balance DEC1991 (FFR and US\$ accounts)	\$	39 899.34
In 1992 the CDE received the following grants :		
IMU (schedule B academic expenses) :	\$	11 363.64
ICSU (application made by IMU on behalf of CDE	\$	20 885.00
Mathematical Society of Japan	\$	1 153.25
UNESCO-ROSTA 1992 contract (\$ 3000) 1st payment	\$	2 500.00
UNESCO-ROSTSEA 1992 contract (\$ 4500) 1st payment	\$	4 200.00
Soc. Math. de France (donations of members) FF 7517	\$	1 488.30
Subtotal funds received	\$	41 590.19
Total funds available	\$	81 489.53

CDE 1992 EXPENSES

:c stands for COMMITTED on 1992 funds
:e stands for estimated cost

Name	Activity	IMU	UNESCO	ISCU	Total
SUPPORT TO INDIVIDUALS					
Tan (NX)	IL	27	1 500		1 527
Tarzia	IL	600			600
Kabbaj	IL	66	500		566
Paternain	IL			1 010	1 010
Corach	IL			1 010	1 010
Ndoutoune	IL		1 000		1 000
Cuong	IL	10	1 000		1 010
Cuckierman	IL			1 010	1 010
Tan (XJ)	IL	500:e	1 000:c		1 500:e
Muu	IL			1 250	1 250
Tamizmahni	IL	500:e		1 000:c	1 500:e
Kahn	IL	780		720	1 500
Zhang	IL	500:e	1 000:c		1 500:e
Osse	IL	500:e	1 000:c		1 500:e
Subtotal	IL	3 483	7 500	6 000	16 983
SUPPORT TO CONFERENCES					
LOWDIM	CS	1 050		2 000	3 050
FAGA	CS	110		1 900	2 010
GIRAGA	CS	500	500	1 000	2 000
MATHAPPL	CS			2 000:c	2 000:c
APPLIEDANA	CS			2 000:c	2 000:c
SEACME	CS		1 000:e	1 000:c	2 000:e
Subtotal	CS	1 660	1 000	9 900	12 560
SUPPORT TO TEAMS					
Vietnam92	TM			3 000	3 000
Vitenam93	TM	1 000:c		2 000:c	3 000
Subtotal	TM	1 000		5 000	6 000

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CDE support to send free collections of Annales de
l'Institut Fourier to three research centers

Abuja (Nigeria)	450	450
Cordoba (Argentina)	482	482
Hanoi (Vietnam)	519	519

Subtotal	1 451	1 451
=====		

SECRETARIAL EXPENSES

(all converted from FFR to US\$ according to chancellery
exchange rates)

Secretarial help (salary and social fees); small expenses

Other secretarial expenses supported by Institut Fourier

AMS bank charges (wire fees usually included in payments)

Salary (91; paid 92)	1 445	1 445
Social fees (above salary)	585	585
Retirement fund (above salary)	49	49
Unemployment fund (above sal.)	110	110
Salary (1992)	1 398	1 398
Small expenses	19	19
AMS bank charges	60	60

Subtotal	3 666	3 666
=====		

Total CDE expenses (paid or committed)		\$ 40 660
=====		

SUMMARY 1992

Funds available	\$	81 489
CDE expenses	\$	40 660
DEC1992 balance (funds available)	\$	40 829
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ICMI

Accounts 1992: 1 January - 31 December

Swiss Franc Account:

Income:

balance 1991	22.749,67
IMU (Schedule A: Administration)	10.000,00
IMU (Schedule B: Scientific Activities)	18.000,00
IMU grant for ICME-7	11.000,00
interest	2.257,17
total	<u>64.006,83</u>

Expenditure:

transfer charges (IMU)	15,37
transfers to DKR account	4.500,00
balance 1992	59.491,46
total	<u>64.006,83</u>

Danish Kroner Account:

Income:

balance 1991	1.306,50
transfer from Swiss Franc Account (4.500)	19.288,20
transfer from Sterling Account (1.500)	16.375,35
private contributions to ICMI's Solidarity Fund	916,16
total	<u>37.886,21</u>

Expenditure:

Secretary's meeting in Unesco (April)	4.731,53
typing and printing, Bulletin	4.922,50
postage Assessment Study manuscripts	740,00
EC members' participation in ICME-7, including GA and EC meetings	22.257,50
credit card charge	150,00
balance 1992	5.084,68
total	<u>37.886,21</u>

Sterling Account:

Income:

balance 1991	25.267,53
CUP royalties for studies	306,87
interest	1930,63
total	<u>27.305,03</u>

Expenditure:

accumulated previous tax due in the UK	1.891,55
transfer to DKR account	1.500,00
balance 1992	23.913,48
total	<u>27.305,03</u>

US\$ Account:

Income:

balance 1991	26.764,38
Unesco grant for ICME-7	2.200,00
payments	185,10
interest	270,71
private contributions to ICMI's Solidarity Fund	20.300,00
total	<u>49.720,19</u>

Expenditure:

ICMI contribution to ICME-7	5.000,00
IMU contribution to ICME-7 (≈ CHF 11.000)	8.700,00
Unesco contribution to ICME-7	3.000,00
Contribution to SEACME 6	2.000,00
Tibor Nemetz fund finished	750,00
EC members' participation in ICME-7, including GA and EC meetings	628,96
transfer charges	24,48
balance 1992	29.616,75
total	<u>49.720,19</u>

Notes:

1.

As a consequence of the ICMI General Assembly and Executive Committee meetings held in Québec, 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 bank accounts at a minimum.

2.

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 is paid in two parts. Only the first sum (US\$ 2.200) appears in the accounts. The second sum is yet to be paid, but ICMI has transferred US\$ 3.000 to ICME-7.

3.

In addition to the amounts displayed directly in the accounts, considerable extra sums should appear but do not and cannot. In 1992 Roskilde University (the Secretary's institution) has contributed a substantial support of ICMI's work (e.g. telephone and -fax, e-mail facilities, postage, some of the printing costs and all the 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 so forth.

4.

In 1993, the preparation and holding of an ICMI study conference (on *Gender and Mathematics Education*), and the preparation of one, perhaps two, other ICMI studies (on *Research in Mathematics Education* and on *Geometry*, respectively) will imply considerable costs.

5.

In appreciation of the extraordinary and most impressive work done by Professor Tibor Nemetz in ICME-6, Budapest 1988, the then ICME EC decided to establish a small fund to make it possible for Prof. Nemetz to participate in ICME-7. In 1992 the fund was used for its purpose and has hence come to an end.

WORLD DIRECTORY OF MATHEMATICIANS
 9TH EDITION
 FOR THE YEAR ENDED DECEMBER 31, 1992

REVENUE:

196 Units, US\$ 40	7,840.00	
1 Units, US\$ 26	26,00	
4 Units, US\$ 0	
TOTAL REVENUE		7,866.00

AMS SERVICE FEE

201 Units, US\$ 9.00		1,809.00
	

BALANCE DUE TO IMU

6,057.00
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RECONCILIATION OF UNITS

Total Copies Printed		1,298
Less: Advance Copies	102	
1990 Sales	360	
1991 Sales	329	
1992 Sales	201	992

ON HAND DECEMBER 31, 1992

306
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