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IMU

B U L L E T I N

OF THE

INTERNATIONAL MATHEMATICAL UNION

No. 19
DECEMBER 1982

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INTERNATIONAL MATHEMATICAL UNION

EXECUTIVE COMMITTEE (1.1.1979 - 31.12.1982) :

President :	L.	CARLESON
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Secretary :	J.L.	LIONS
Members :	E.	BOMBIERI
	J.W.S.	CASSELS
	M.	KNESER
	O.	LEHTO
	C.	OLECH
Past President :	D.	MONTGOMERY

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EXECUTIVE COMMITTEE (1.1.1983 - 31.12.1986) :

President :	J.	MOSER
Vice-Presidents :	L.D.	FADDEEV
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Secretary :	O.	LEHTO
Members :	S.	MIZOHATA
	G.D.	MOSTOW
	M.S.	NARASIMHAN
	C.	OLECH
	J.	PALIS Jr.
Past President :	L.	CARLESON

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F O R E W O R D

The Executive Committee of IMU, at its meeting in Paris, November 13 1982, decided to confirm the organization of the International Congress of Mathematicians in WARSAW, in August 1983.

At the General Assembly, held in Warsaw, August 1982, there was a general feeling that the Congress should take place, if possible. Since then, the Executive Committee has heard from several National Committees. It consulted again with Polish organizers and with many individual mathematicians, Poles and others. Invited speakers were also consulted.

Immediately before the meeting of November 13, the President of IMU visited Poland for consultations. In addition to meeting members of the Organizing Committee and other mathematicians, he was received by the Vice Prime Minister, Mr. RAKOWSKI.

The Executive Committee has been assured that no practical matters will interfere with the organization of the Congress. The Vice Prime Minister confirmed that the plan of the Polish Government to cancel martial law by the end of 1982 still stands.

Information and views received did not point in a single direction and the Committee had considerable difficulty in reaching its decision. In the light of all the information, the Executive Committee did not feel justified in taking the drastic step of cancelling the Congress. On the other hand, the Executive Committee believes that there are indications that a Congress in 1983 could be scientifically successful.

The tradition of regular congresses is an important one which has only been interrupted during the two world wars. It is our conviction that our decision to hold the International Congress of Mathematicians in 1983 best promotes international cooperation in mathematics.

In reaching this decision, the Executive Committee expresses its sincere wish that all those connected with the Congress will respect its non political nature.

I. C. M.   '83
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Following the decision taken by the Executive Committee of IMU,
the International Congress of Mathematicians will be held in WARSAW,

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|                                   |
|        August 16 to 24, 1983      |
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*All practical information will be available at the beginning of the
year 1983, directly from the Organizing Committee for ICM '83,*

I M P A N

Sniadeckich, 8
POB.   137
00-950 - WARSAW
(POLAND)

RECORD OF THE NINTH GENERAL ASSEMBLY
OF THE INTERNATIONAL MATHEMATICAL UNION

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WARSAW, POLAND
August, 8-9 1982

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§ 1.   The Ninth General Assembly of the Union has been held at Warsaw, Poland, at the Hotel FORUM, on August 8 and 9, 1982. Under special circumstances, because of the postponment of the International Congress of Mathematicians, as related by the President of the Union in his address, it has been a well-attended meeting in an admirable frankness atmosphere.
The Assembly opened with a word of welcome from Professor C. Olech, chairman of the Organizing Committee for ICM and greetings from Academician A. Gieysztor, President of the Polish Academy of Sciences, who addressed the Assembly in these words :

"It is a random event that this honour has fallen to an historian whose lack of competence in mathematics goes back to his schooldays. But just from these times comes his admiration for both mathematics and authorities in this field. This appreciation grew in contacts at the University with these preminent mathematicians who rendered service not only to their scientific discipline but also to general science meant both in international and national scale.

I mean here W. Cierpinski, President of the Warsaw Learned Society, whose 100th anniversary of birth was celebrated this year also in our Academy. I mean also in particular Kasimir Kuratowski who was for many years the Vice-President of the Polish Academy of Sciences and who reported in his autobiography from a reunion in Rome in 1952 : "My colleagues from the leadership of the Union asked me many times whether or not the Polish mathematicians would be happy to be the host of the International Congress of Mathematicians in view of the geopolitical situation of Poland and level of Polish mathematicians". Let me add here what he has hoped, we will hope. This hope is expressed not only by the Polish mathematicians but also by the whole scientific community of my country.

Quoting E. Kant, who said that the amount of science in each scientific discipline equals the amount of mathematics it involves, he says that today it is possible to add this simple statement that the amount of science

in each scientific discipline equals to the amount of effort to attain the
completion of the truth and the whole truth. Now, all scientific disciplines
can apply to a great deal of mathematics - even historians cannot ignore
computers in their researches. But in all self-respecting scientific disci-
plines, ethical and community problems are united. This is at the same time
the only real international plan of understanding between scholars.

You are facing important problems to be discussed at this Assembly. I would
like to wish you a full success during these two days devoted to your excel-
lent and beautiful set of studies".

After thanking Academician A. Gieysztor for his kind words of welcome, Professor
L. Carleson, President of IMU and chairman of the General Assembly, opened the
meeting on August 8, 1982, at 10.30 a.m.

§ 1. The lists of participants are given in ANNEX 1.

The Agenda, that had been circulated beforehand, is given in ANNEX 2.

§ 2. The President addressed the Assembly and gave the announcement of Prizes and
the report of the Site Committee (ANNEX 3).

§ 3. APPOINTMENT OF COMMITTEES OF THE ASSEMBLY.

Upon suggestions from the Executive Committee, the General Assembly approved the
appointment of the following committees for the transaction of business :

Credentials Committee :

M. Barner, chairman   (B.R.D.)
C.G. Gregorio   (Argentina)
M. Gregus   (Czechoslovakia)
I. Louhivaara   (Finland)
Secretary of IMU, ex-officio.

Nominating Committee :

L. Carleson, chairman President of IMU (Sweden)
M. Atiyah   (U.K.)
D. Blackwell   (U.S.A.)
Z. Ciesielski   (Poland)
Lê van Thiêm   (Viet-Nam)
I. Simon   (Brazil)
M. Sion   (Canada)
J.L. Verdier   (France)
V.S. Vladimirov   (U.S.S.R.)

Resolutions Committee :

T.B. Benjamin, chairman	(U.K.)
L.D. Faddeev	(U.S.S.R.)
G. Marinescu	(Romania)
B.H. Neumann	(Australia)
E. Stein	(U.S.A.)
Secretary of IMU, ex-officio	

Tellers :

B. Bojarski, chairman	(Poland)
A. Ashour	(A.R. Egypt)
K. Okamoto	(Japan)

Finance and Dues Committee :

F. Gehring, chairman	(U.S.A.)
L. Iliev	(Bulgaria)
S.M. Nikolskii	(U.S.S.R.)
Peng Yee Lee	(Singapore)
E. Vensentini	(Italy)
Secretary of IMU, ex-officio.	

The Credentials Committee reported that the voting strength was up to 95 votes over 112 (PAKISTAN not included). 36 countries were represented and 13 missing. Missing :

Group I : CUBA - GREECE - HONG-KONG - ICELAND - IRAN - D.P.R. KOREA - MEXICO - NEW ZEALAND - PORTUGAL - TURKEY.

Group II : AUSTRIA - ISRAEL.

Group III : BELGIUM.

Following the new Rules of Procedure for the election of the Executive Committee of IMU, the Executive Committee of I.C.M.I. and the Commission on Development and Exchange (C.D.E.), as the result of the international postal ballot Nb. 14, the National Committees gave names to the Executive Committee of IMU during the spring 1982. These names have been considered by the E.C. when making its slates on its meeting on April 2, 1982.
Therefore the delegates have the possibility to add names to be considered for the slates, by having ten signatures, on the first day of business at the G.A.
The Nominating Committee will then prepare and present the slates for elections.

The Finance and Dues Committee met on the first day of Assembly at 12.00 on August 8, 1982. Its report is given under § 7.

§ 4. <u>RULES OF PROCEDURE FOR THE ELECTION OF THE EXECUTIVE COMMITTEE OF I.C.M.I.</u>

It has been felt that the previous system consisting in that the General Assembly of IMU would choose the officers of ICMI and then 15 delegates which were supposed to be part of the Commission itself, which is a kind of General Assembly for ICMI, was rather difficult, because this Commission had undefined objects and most of the decisions are to be taken by the Executive of I.C.M.I..

So a new idea is expressed in the Terms of Reference (ANNEX 4) ; it would be more reasonable that the General Assembly of IMU would choose the complete Executive of ICMI and not any part of the Commission itself, leaving to this Executive the task of reorganizing the work of ICMI in consideration of the Commission itself, that is that its General Assembly will be integrated in a suitable way with its work.

> No question being raised from the floor, the Terms of Reference for the International Commission on Mathematical Instruction (I.C.M.I.) that had been accepted by the Executive Committee of IMU last year are also accepted by the General Assembly of the Union.

Therefore

> The slate for the ICMI Executive Committee is accepted.

<u>Proposal for Executive Committee of ICMI</u> :

President :	J.P. Kahane	(France)
Vice-Presidents :	B. Christiansen	(Denmark)
	Z. Semadeni	(Poland)
Secretary :	A.G. Howson	(U.K.)
Members :	B. Nebres	(Philippinas)
	M. Newman	(Australia)
	H.O. Pollak	(U.S.A)
Ex-officio members :	H. Whitney	Past President
	The IMU Representative at ICSU-CTS.	
	The President of IMU	
	The Secretary of IMU.	

§ 5. NEW MEMBERS.

Three country-members entered the Union during the period 1979-1982, in Group I :

HONG-KONG, (1.1.1982),
REPUBLIC OF KOREA (1.1.1981),
and VIET-NAM (1.1.1981).

Three other applications for membership have been received and discussed at the Executive Committee, and are brought to the attention of the General Assembly.

Application from CHILE :

The Executive Committee recommends the admission of CHILE in Group I, starting 1.1.1983.
The National Committee that is proposed consists of :
Jorge Soto Andrade, chairman, Rolando Chuaqui, Jorge Gonzales, Gonsalo Riera and Florencio Utreras.
The application has been introduced by Professor Rolando Chuaqui, from the Mathematical Society of CHILE, which will be the National Adhering Organization.
There is definetely a non negligible mathematical activity going on in CHILE, and a number of good young mathematicians are sent abroad in various countries

Application from COSTA-RICA :

This application is presented by Professor B. Montero, President of the Mathematical Association of Costa-Rica.
In its discussion, the Executive Committee of IMU envisioned the possibility for COSTA-RICA to first adhere to ICMI and also get in touch with the work of the CDE.

Application from MOZAMBIQUE :

This application is presented by the University of MAPUTO, introduced by Professor Paulus Gerdes, Head of the Department of Mathematics and Physics of the Eduardo Mondlane University in Maputo.
As beforesaid for COSTA-RICA, the amount of information at the disposal of the Executive Committee of IMU does not allow to conclude to recommend to the vote of the General Assembly the admission of MOZAMBIQUE, but it is recommended to first adhere to I.C.M.I. and also get in touch with the work of the IMU C.D.E.

After a general comment from Professor Ashour (A.R. EGYPT) on the difficulty of defining a mathematical level for developing countries, the following decisions were voted by the General Assembly :

> CHILE is accepted as a member of IMU, starting 1.1.1983

> Concerning COSTA-RICA and MOZAMBIQUE, the General Assembly instructs the Executive Committee to explore these two applications in more details and agrees that these countries could be immediately associated with the work of I.C.M.I.

Question of PAKISTAN :

The Chairman states that the question of PAKISTAN is pending since more than eight years ; no reply came to correspondence and dues are still unpaid.
After a long and extensive discussion, there was a general agreement that no member should be excluded on purely financial grounds.

> It therefore recommended that a letter is sent to Professor A. Salam and to those mathematicians the Executive Committee could get in touch with through ICSU's help, asking for more information about mathematical life in PAKISTAN.[1]

Question of the admission of the PEOPLE'S REPUBLIC OF CHINA :

The Chairman states that many efforts have been made by the Union ; as for the moment he has been notified that delegates from the P.R. of CHINA are coming to Warsaw during the session of the General Assembly to be able to discuss with people present and get some information on the work of the Union.

[1] A positive answer has just been obtained from PAKISTAN. This will be reported in the next IMU Bulletin.

§ 6. REPORT ON THE ACTIVITIES OF THE UNION.

These activities have been summarized in the Special Number of the
IMU Bulletin. The general comments made by the Secretary of IMU when
presenting these activities, are, concerning scientific activities,
(Schedule B of the IMU budget) :

Symposia, Conferences :

About the General Meetings, it is reminded the rule that no symposia is supported
by the Union during the year when ICM takes place.
It is obvious that this similar situation will not occur in 1983, the financial
provisions for ICM 1982 being set apart in the IMU budget.

IMU Lectures :

Three such series have been given and details are to be found in page 7 of the
Special Number of the IMU Bulletin for the General Assembly.
It has been asked by the authors to re-write their manuscripts ; therefore these
lectures have not yet been published in L'ENSEIGNEMENT MATHEMATIQUE and the corres-
ponding stipend has not been paid.
Two other invitations, directed to Professor V. Arnold and L. Faddeev are still
open and it is the wish of the Executive Committee that they be honoured as soon
as possible.

Fellowships :

Three grants have been extended, in 1979 and in 1980 ; though IMU budget is very
modest, it is suggested to delegates, when they return to their countries, to ask
some of the best people to apply for such Fellowships.

A suggestion is made by Professor Verdier (FRANCE) concerning the IMU lectures that
the high standards of these lectures could perhaps attract a larger audience if
located in such places where already planned symposia or meetings are to be held.

I.C.M.I. :

A report from Professor P. Hilton, Secretary ICMI, is shown on pages 8 and 9 of
the Special Number of the IMU Bulletin.

Professor Newman (AUSTRALIA) summarizes the situation with respect to ICME-V, which is going to held in Adelaïde (Australia) in August 1984, and asks for suggestions to be transmitted to the Program Committee which is going to meet in August 1982 in Nottingham (U.K.).

About the second point raised on ICMI's matters, i.e. the reorganization of the Executive Committee and the role of the Commission, some delegates emphasized the fact that the Commission should be given its definite role and definite purpose of work.

Report on the work of the C.D.E. (Commission on Development and Exchange) of IMU :

This report is presented by Professor Hogbe-Nlend, who summarizes the activity of the C.D.E. into five chapters.

The C.D.E. was especially interested and has directed its action to countries which are not always members of IMU ; there are special cases for more than one hundred countries in Africa, Asia or Latin America where the role of the C.D.E. is to follow the mathematical situation and to try to work directly with these countries.

First, two kinds of help, scientific and financial, have been given to mathematical activity in Africa, Asia and Latin America.

For scientific activities, we have tried every year to support three scientific activities, one in each continent, and our policy has also been to try to help regional gatherings of mathematicians.
In South-East Asia, we have worked with the SEAMS, in Africa, we created the African Mathematical Union which works strongly and directly with UNESCO, to help and coordinate mathematical activities and to create seminars, regional or sub-regional.
There is no such continental or regional organization for mathematics in Latin America, but there are regional characteristics such as the Brazilian Congress of Mathematics in Poços de Caldas, which is national in its organization and regional in its attendance with a gathering of mathematicians coming from all over the continent.
There exists also the Latin-American School of Mathematics (ELAM, in Spanish), which is a very important regional mathematical activity. Some other activities are connected with ELAM, for instance IACME (Inter-American Commission on Mathematical Education) and here we try to help them in cooperation with ICMI.

Further to scientific regional activities, we also tried to help regional publications which are the SEAMS Newsletter and Afrika Matematica.

Our second activity is a very important program to help mathematical libraries in developing countries, as follows : it has been observed that there is a very great lack of books, reviews, mathematical journals in those developing countries that do not have enough financial funds to buy some. On the other hand, in the Northern Hemisphere,many people have books and do not know how to use them. So we have launched an international program to try to collect books and send them to those countries that need them.
This is a difficult program ; we already succeeded in sending about one thousand books and we have many proposals that are coming in.

Our third point is our cooperation with two international centers :
ICPAM (International Centre for Pure and Applied Mathematics), which is located in Nice (France), and
ICTP (International Centre for Theoretical Physics), in Trieste (Italy), where training courses in mathematics and applied amthematics are held for developing countries.

Our Commission has also to prepare ICM and to find how to help developing countries in participating in the work of the Congress.
We keep contact with Professor Olech to give him ways and means to be in connection with countries that are not members of IMU, to find people and how they can come, and we also use this channel to give information on behalf of the Organizing Committee.

Last point : our Fellowship program. Partial grant can be given to some mathematicians from developing countries to participate in the work of ICM. IMU budget has some money for that and our Commission has also tried to raise funds for that purpose from various sources.

This is the philosophy of our activity. On page 12 of the Special Number of the IMU Bulletin, you will find details of our activities and on page 13, some ideas about the progress for the future of the C.D.E. activities are given.
First of all, I think that the newly elected Commission should continue to support financially and scientifically mathematics in developing countries.
Secondly, a large program of what we call a "selective bibliography of mathematics" is thought of, i.e. to use international mathematical committees to get a small bibliography of mathematics because it is not possible for each developing country

to gather all books and every journals.

We are also thinking of a program of a "Third-World Directory of Mathematicians", because the W.D.M. is not representative of these countries ; names come through the channel of National Committees and of course many countries which are not yet members of the IMU cannot possibly appear.

It is felt as necessary during the forthcoming period to launch such a program and to publish such a Directory ; individuals, institutions and topics of developing areas and to publish a Newsletter to know what are the activities in these developing countries.

This is what we have done and what we have in mind. Our cooperation with the E.C. has been very good and fruitful and I take this opportunity to thank all members of the Executive Committee for their cooperation and wish it will continue in the future.

We also cooperated with ICMI. As you know, in many developing countries, the real mathematical activities are educational. Our Commission has participated in the preparation of the Berkeley Congress : we have raised money to help some mathematicians and we hope to be able to continue such kind of activity.

Publications of the Union :
Following the review of the activities of the Union during the past period 79-82, the General Assembly discussed on the publication of the Bulletin and Professor Nagata reported on the work of the World Directory of Mathematicians.

W.D.M.
The 7th Edition will appear at the end of the year with the help of the A.M.S. (American Mathematical Society). Some up-to-date lists were not received in due time and therefore some countries may appear with the 1978 list. Furthermore, it has been thought of including the lists of important mathematical societies, but these lists were not yet available ; it is hoped that they can appear in the next edition.

As for the distribution, it will be made through North-Holland, A.M.S. and inside Japan ; the price depends on where the order is sent.

More detailed information on where to order the WORLD DIRECTORY OF MATHEMATICIANS is given on the reverse side cover of this Bulletin.

> The General Assembly expresses its thanks to Professor Nagata for all the work he has conducted for the World Directory of Mathematicians.

Some comments were made by delegates :

Professor Budach (DDR) : expressed the feeling that the W.D.M. is of great help to many mathematicians, and agrees with Professor Hogbe that the representation must be improved in the future. Not only from developing countries, but also from those mathematicians working on the border between mathematics and other disciplines, especially on the border between mathematics and computer science, complexity theory for instance ; they all are in computer science department and he adds that he was proposed to try to gather such names from Czechoslovakia, East and West Germany, France.. from those computer science department to publish then in the Directory, especially now that the Union has this Nevanlinna prize that expresses the interest of the Union in those directions on the border of mathematics and other disciplines.

Professor Vaillancourt (CANADA): asks that the W.D.M. representative gets a name to contact - Professor Nagata's or AMS - that enable National Societies to be sure they have the information ready in mind to prepare the next edition. Another suggestion would be that some practical information be given to National Committees on the way the lists are to be prepared, alphabetical order, a number for the address and so on, so that it could be much quicker for the editor to organize these lists and have them computerized.

Summarizing the comments made on the W.D.M., the chairman expresses the general feeling that this Directory is useful and should continue. A personal comment adds that it could not come out every four years, but that the wish it should come out regularly is clear.

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SECOND SESSION OF THE GENERAL ASSEMBLY OF IMU - August 8, 1982 - 2.45p.m.

It is suggested to discuss during the afternoon the point 10 of the Agenda : "ICM '82 and Program Committee for ICM '86" which is one of the main reasons of the meeting.

The Chairman first makes precise the point on the Program Committee :

There is an impression that there has been some misunderstandings because of the name of the Committee, that it is being consulted and that somebody else is taking the decision. So, it is suggested here that we change the name of this Committee from Consultative Committee to Program Committee and should have approval of a formal decision.

> The General Assembly approves the change of the name of the Committee for ICM from Consultative Committee to Program Committee.

The Chairman then expresses the wish of the Executive Committee, after its decision on April 2, 1982, to postpone the Congress, that a discussion could take place at the General Assembly and that everybody would be given in this way an opportunity to express their views.

He also adds :

"It is also our hope that you should do this as individuals, and because of the difficulty of the situation, not to try to unify anything at this moment into an unanimous statement, but rather that the Executive Committee could collect as many voices as possible, as many opinions to keep this in mind when the decision is taken in November".

Professor C. OLECH (chairman of the Organizing Committee for ICM).

Information about the Warsaw Congress. *(statement nb. 1).*

Around six thousand copies of the Second Announcement have been
distributed partly before and partly after December 13. That is
that many mathematicians showed an interest to participate in the
Congress in Warsaw, which allowed us to believe that participation
should be of the same range as in Helsinki.
Our plans are for 3.500 participants and 800 accompanying persons.

However the number of registration forms received was rather small,
no more than 300. The news about the postponment of the Congress were
spread in April.

The Consultative Committee for ICM '82 made the final decisions in the
middle of October 1981 and around October 22, 16 invitation for one-
hour plenary lectures and 138 for lectures in 19 sections had been sent.
The deadline for acceptance was December 15, 1981 for plenary lectures
and February 15, for invited speakers in sections. 15 plenary lecturers
accepted and one did not answer in a written form. Since the one who
did not accept did not have an alternate, thus it remained only 15
invited plenary speakers and no alternate has been invited.

In the case of invited lecturers up to April, several alternates have
been also invited. Thus the number of invitations mailed increased to
151 and the statistics are as follows : 127 accepted the invitation -
20 declined and 4 never answered.

From those who accepted, 71 did so after December 13 and 9 confirmed
acceptance after December 13. Thus 80 from 127 accepted the invitation
when martial law was already imposed in Poland. Only 6 referred to the
situation directly or indirectly.
Here are some quotations : "I will attend ... provided the situation in
Poland makes it possible", "if political conditions should make it
impossible to attend, I will send a manuscript", "if the government do
not restore basic freedoms or does not release the Solidarity leaders
from detention then I shall most likely feel obliged not to attend the
Congress".
Two gave a vague acceptance not giving a title of their lectures.
"I am interested to attend the Congress if it will be feasible"
"I am accepting in principle". Another send a telegram saying that if
Professor X will be in prison, I will not attend the Congress.

Out of 20 invited lecturers 7 sent back a form and marking in it :
"I do not accept" with no comment or letter, one clearly stated that
"in the present situation in Poland, Congress should not be held in
Warsaw and therefore he is not accepting. The remaining gave an excuse
not connected with the political situation in Poland.

On April 9, letters have been sent to all invited speakers informing
them about the decision of the E.C. of April 2 except those who did not
accept and gave no reason for it or had a personal alternate and he
accepted or gave reasons for not accepting which clearly are valid also
for 1983.

To those who did not answer, the original invitation also such a letter have been sent. Thus all together this letter was sent to all 16 one-hour speakers and 141 invited lecturers in sections.

The letter contained the request to submit a manuscript before February 28 1983, and a deadline for an answer October 31, 1982. Up to now only 18 reacted. Two who accepted the invitation for 1982 declined it for 1983 (one of them said : "I do not want to be fooled again") but also two who declined for 1982 accepted for 1983.

Due to rather basic changes and economical reforms in Poland, for example rather drastic raise of prices, devaluation of Polish currency, the budget of the Congress for 1982 is practically meaningless for 1983 and thus all the practical arrangements will have to be done again. However the Organizing Committee will make an effort not to raise much the registration fee, but rather will try to reduce the expenses if necessary.

: Chairman :

Before we start the discussion, may I mention the essential type of questions that we hope some of you get individual answers during the discussion to-day.

They are :

1) - if a Congress is held under conditions such as the present what would be the attendance of your country ;

2) - which changes in the conditions do you consider most important ?

I am giving the type of questions the E.C. would hope to work on from the statements that you will make to-day.

Professor ATIYAH (U.K.) : *(statement nb. 2)*.

I feel that many mathematicians, when deciding whether to attend the ICM in Warsaw in 1983, will be influenced by information about scientists interned or imprisoned in Poland. This is a fact which the E.C. of IMU will have to assess at the appropriate time when it makes its decision concerning the ICM. In addition practical questions of economics and logistics will be important but the political situation will be the dominant factor.

I appreciate all the work done by our Polish colleagues in preparation for the ICM and very much hope that it will be possible to hold a successful meeting in Warsaw in 1983.

Professor HOUZEL (FRANCE) :

A statement has been circulated among the delegates on behalf of the French delegation.

Professor HOUZEL points out that this paper is not up-to-date now because it has been written in April, after the meeting of the G.A. of the Société Mathématique de France.

Since that time some improvements occured but the following points are still considered as valid :

First the ICSU general rules on free circulation of scientists are to be respected.
It implies :

1. the liberation of the Polish mathematicians in jail,

2. that the Polish Mathematical Society be no more suspended,

3. all visas should be delivered,

4. a free participation of the Polish mathematicians to the Congress.

These four points in our letter are still valid and the Société Mathématique de France will examine anew the situation and make its decision in October, before the meeting of the E.C. in November.

Professor SION (CANADA) : points out two items :

- first, if this is not possible for practical reasons to hold the Congress before 1986, will there be some proceedings ?

- feels that economical conditions may considerably react on the decision for attendees.

He says that when going back to Canada, he will recommend to attend and report how Polish mathematicians feel with their Congress.

Professor MOSTOW (U.S.A.) : *(statement nb. 3)*

As members of IMU, we welcome the opportunity to assemble in Congress with mathematicians from all over the world and we appreciate the mutual trust that our shared language of mathematics fosters. It is normal that the Congress meets in countries governed by diverse political systems.

However, when a country declares martial law, it announces that its authority is irregular, no longer resting on the consent of the governed. On its face, martial law is incompatible with the tranquility that a host country is expected to provide an International Congress. After December 13, a 1982 Warsaw IMU Congress seemed unthinkable.

However, following the visit of President Carleson, Professor Lions and Professor Lehto to Warsaw last February, they reported that our Polish colleagues fervently desire the Congress to proceed and that moreover, under certain improved circumstances, a Congress was conceivable. We were urged to look behind the term "martial law" which was aimed primarily at reversing economic decline.

Along with our colleagues in other countries, American mathematicians are caught in a conflict between dedication to principles on the one hand, and the desire to help our Polish colleagues on the other. In today's discussion in this General Assembly, we are asked to advise the Executive Committee on desiderata for its forthcoming November vote on whether to reconfirm the 1983 Warsaw Congress or to cancel it.

Based on information collected by the U.S. National Committee for mathematics, the major obstacle before individual American mathematicians contemplating attending a Warsaw Congress is the moral repugnance at the imprisonment of many merely for exercising their rights as responsible citizens.

The Human Rights Committee of the National Academy of Sciences, through its sources of information, has been collecting information about the abuse of scientists, wherever available. For example, it has sought the release of Juan Massera from imprisonment in Uruguay. I have with me a list of 156 Polish scientists who have been interned or imprisoned since December 13. I hope that by October, the status of the scientists on the list will be made known by the Polish authorities - whether freed, detained without charges, or convicted for specified crimes.
The French delegation has independently taken a similar initiative.
We urge the E.C. to study the data made available by these inquiries before making its decision in November. U.S.A. attendance at a Warsaw Congress will be dependent on how much improvement we perceive in the liberation of Polish colleagues.

Chairman :   Let me summarize what questions have been put to our Polish colleagues.

- what is the probability in your judgment that the situation will improve from now till November and from November to the Congress ;

- would it be practicable and possible to have a Congress in the situation as now it is ;

- do you have available statistics concerning the mathematicians in prison ;

- how do you feel about the martial law and what is the probability that in your judgment it will be lifted before November and before the Congress.

Professor OLECH :

(Statement nb. 4).
He said among others that Polish mathematicians would not invite Congress to Warsaw if they knew what will happen in Poland and that now the question is whether the Congress should be cancelled or not, rather than whether Polish mathematicians should invite congress to Poland in such political situation. That we are caught in by this unexpected in 1978 situation. That refusing now to organize a congress would be perhaps a comfortable decision from the moral point of view but also irresponsible and harmful to all those who are eager to attend the congress and specially to invited speakers who accepted the invitation and are anxious to address the Congress. We cannot turn our back to the responsibility we took in 1978 simply to avoid a morally uncomfortable situation.

He mentioned that many of the restrictions of the martial law which were considered as serious obstacle to hold the Congress this year are gone. He said that the number of internees is smaller. That out of 8 mathematicians with doctor degree being interned in February at the time some members of the E.C. visited Poland, two still are. That the number of mathematicians interned is larger about 28 but many of the names would not be known to mathematical community if not being interned.

He also expressed an opinion that releasing all interned and arrested mathematicians cannot be accepted as a condition for the Congress in 1983. In other words, insisting on such a condition will be the same as insisting on cancellation of Congress in Warsaw which will be of no help to those who are in jail but will be harmful to the many others, while having a Congress in Warsaw might help the cause of interned mathematicians.

He also stated that in his opinion there were serious reasons for such drastic decision as introducing the martial law. That very likely much more tragic developcomment could take place. Thus one should not expect that martial law will be suspended if the reason for which it was introduced will not be removed. But he quoted General Jaruzelski that hopefully the martial law will be suspended by the end of this year.

Professor BUDACH (G.D.R.) : *(statement nb. 5)*

The goal of the IMU is to bring mathematicians of the whole world
together in fruitful cooperation. This goal can be realized in the
actual political situation only if political questions and opinions
are separated from the work of IMU.

Therefore, if there are no economic reasons which don't allow our
Polish colleagues to organize the Congress in 1983, the delegation
of G.D.R. is fully supporting the proposal to organize the Congress
next year in Warsaw.

Professor NIKOLSKII (U.S.S.R.) translated from Russian by Pr. ZISCENKO :

Expresses the same viewpoint than Professor BUDACH.
Let us not get involved in political discussions ; we don't want this
session of the General Assembly become an historical one. He feels that
there is a strong wish in this community to go to political discussions
but he knows the spirit of mathematical congresses for more than 30 years
and feels this spirit is changing.
He adds that the possibility of having a Congress here is quite obvious.

Professor BENJAMIN (U.K.) : *(statement nb. 6)*

I believe I fully appreciate the moral dilemma that has been explained
eloquently by Professor MOSTOW, and therefore I do not intend to belittle
the difficulties of conscience that may have to be faced by him and others
when deciding whether or not to participate in the Congress if it is held
here next year. However, I take a simple and very practical view of the
main issue, and I wish to recommend this view to the General Assembly
(Incidentally, I find myself in broad agreement with the remarks just
made by our Russian colleague. The aspects emphasized by him are different
from those to which I mainly attach importance, but our conclusions are
the same).

I first ask myself who is to blame for the predicament now faced by the
Polish organizers of this International Congress, moreover for the serious
problems now faced by many distinguished mathematicians and other scholars
in Poland. But a more important question for us comes at once to mind :
Who is not to blame ? Certainly, our Polish colleagues are blameless for
the difficulties besetting the Congress, and therefore our primary respon-
sibility is clear. We must aim to help our colleagues, assisting them
in every proper way available to overcome the difficulties.

There are aspects of the present situation here that distress many of us
from other countries, including many who greatly admire this country and
particularly esteem the achievements of Polish mathematicians. But, as
foreigners, we must ask ourselves carefully where our responsibilities lie.
It is not proper for us to exhibit our own indignation at any aspect of
the situation ; above all, we must not express misgivings of a political
kind because they would certainly be ineffectual and might also be harmful.
We must not attempt to intercede in essentially internal problems.

In my view, the Congress should be held here next year, provided the local
organizers consider it to be still practicable. The Congress can be out-
standingly valuable as a symbol of encouragement to mathematicians facing
special difficulties, and so it will be to the lasting credit of IMU.

The Congress will be a symbol of our belief in the vitality of Polish science and in its prospects for continuing prosperity when a more tranquil situation returns. It will furthermore be a symbol in our profound hopes that this tranquility will be restored in the near future.

I recommend, therefore, that we should defer completely to our Polish colleagues. If they decide that the planned Congress is practically possible and will still be valuable to them, then we should offer them every encouragement to go ahead.
The Congress is unlikely to be as well attended and as comfortable as originally expected ; but, whatever its shortcomings, the Congress will be a worthy, deeply justified event.

Moral issues have been canvassed in this discussion, but in my view the overriding moral obligation now falling to us as an international group of scholars is the simple one :
we must help our colleagues over their difficulties, encouraging them to overcome these difficulties in the fine way that this General Assembly has already exemplified.

Professor BOJARSKI (POLAND) :

Also gives his personal appreciation of the situation in Poland, which is very complicated, considering the political, economical and social effects.

He answers the points raised by the French document, the first one, in his opinion, only being relevant for the tenure of the Congress, but he does not agree with the spirit of the French statement, that is to raise conditions that are purely relevant of internal Polish affairs.

From the view point of the Polish group and the material organization, he thinks that, even this year, it was possible to hold the Congress in Warsaw. Since Spring, the conditions improved, but the atmosphere created in the world's opinion about the conditions of life in Poland made it difficult to correct such information before the Congress.

The Polish group is fully convinced that they have now full material, technical and even social conditions to make the Congress possible.

Resuming after the break, at 5.10 p.m., the chairman asks the delegates
to try as much as possible to avoid statements of political nature, and
to concentrate on the aspects of the attendance to the Congress.

Professor B. SENDOV (BULGARIA) : thinks that this discussion was necessary and
after stating that the General Assembly has no rights to put conditions on
the Polish government, points out the practical difficulties that this situa-
tion means for the Organizing Committee and urges the E.C. to keep this in
mind when making its decision.
He also adds that he and his colleagues are in favour of having the Congress
in Poland and hope that in organizing this meeting, one more step in deve-
loping the unity of the IMU will be made.

Professor VERDIER (FRANCE): *(statement nb. 7)*.

The French mathematicians deeply wish the Congress to be held in Warsaw
in 1983.

For us, this Congress is important. It is much more important for our Polish
colleagues who already worked very hard on its preparation and who, in
the difficult situation where they live to-day, join all their hopes in
its success ; we are grateful to them for these efforts and we trust in
their success.

Should the largest participation be ensured, the Congress would be a success.
We, French, through contacts we had taken before this General Assembly, fear
that the attendance to the Congress would be lessened if no positive evolution
of the problem of the imprisoned Polish mathematicians is shown.

On the initiative of the Société Mathématique de France, the French mathe-
maticians are going to re-examine the situation next October.

Professor HOGBE-NLEND (CAMEROON) : points out that the discussion is still
political and that the same situation can be found all over the world. So
it has been a good thing to have this discussion but the solution must be
found outside the Assembly.

Professor VAILLANCOURT (CANADA) : *(statement nb. 8)*.

The National Research Council of Canada, which is the National Adhering
Organization, has raised no objections to the ICM '82 to be held in Poland.
The Canadian Mathematical Society is in favour of the ICM '82 to be held in
Warsaw in 1983, provided our Polish colleagues can organize the Congress.

Professor J. PALIS Jr. (BRAZIL) : expresses first the sympathy of the
Brazilian mathematicians to their Polish colleagues, and believes that
Polish mathematicians are doing their best to help those who are under
harsh conditions.

He also wants to point out the benefits of a mathematical meeting like the
International Congress of Mathematicians in keeping deep contact among mathe-
maticians for the development of mathematics.

Professor PEROVIC (YUGOSLAVIA) : *(statement nb. 9)*.

There are many aspects of situation in Poland : political, historical,
moral, and so on. I am sure that we cannot discuss very successfully
all of them. To give the Polish authorities such kind of ultimatum as :
"the Congress will be held if you set free all acientists (or all
mathematicians)" is not very wise. I think that we can make an appeal and
give a press communication about that question(if we agree to do that).

Now, we can decide to hold or not to hold the Congress in Warsaw in summer
1983. Here arises a question what to do if very few people come. We can
give to the Executive Committee and to the Polish Organizing Committee
to decide about it later in autumn. But, to day, it's only upon our Polish
colleagues to say what to do with the Congress : to hold or not to hold it.

Professor FIEDLER (CZECHOSLOVAKIA) : *(statement nb. 10)*.

The Czechoslovak delegation supports the Polish colleagues if they are
(and will be) willing to organize the Warsaw Congress in 1983.

Professor CIESIELSKI (POLAND) :

According to his opinion, the worse solution is to cancel the Congress,
for the whole mathematical community and for the Polish mathematical
community.
To better concentrate on having the Congress, and though there is no
complete agreement o f opinions among all our colleagues in Poland,
there is a good agreement among mathematicians in Poland ; they want
the organization of the Congress and the action of the mathematical life
in Poland , because the purpose of organizing a Congress is to do mathe-
matics and to keep contact with the world .
But we cannot admit any condition to Polish authorities as the organizers
of the Congress.
If we get support from the IMU, we shall try to do everything.

Professor BARNER (F.R.G.) :

If we concentrate on the conference and its mathematical interest in most
aspects, we should not now make a definite decision or give an approval.
We have observed many improvements in the developments of the last few
months, and given there are no abrupt changes, as we all hope, we can
stay in the expectation that situation will improve till the decision in
November.
From the position of the National Society in F.R.G. the attendance to the
Congress is clearly an individual statement. So we cannot appreciate if
this means a large congress or not, but we would expect a scientific
meeting in which most part of scientific activities represented are really
of upper scale and real scientific contributions made.
So I would suggest that the preparation of the Congress should go on and
that decision be made in autumn.

Professor FADDEEV (U.S.S.R.): *(statement nb. 11).*

Soviet mathematicians will attend the Congress in Warsaw in 1983 in case
Polish mathematicians wish to organize it. There exists a decision of the
Soviet Academy of Sciences to support the organization of the Congress
in this case.

I have heard of the informal discussions and there is an implication in
one of Professor Mostow's speeches that some Polish mathematicians are
reluctant with respect to the desirability of the Congress to be organized
in Warsaw. I want to remark that the position of the local Oragnizational
Committee must be considered as decisive. This Committee was appointed
before the martial law and was not changed ever since. If we trusted them
before, then there is no ground to change our minds now.

Professor NEUMANN (AUSTRALIA) : *(statement nb. 12).*

Mr. Chairman : I don't want to start with a political statement, but
I must say that I am not speaking for any of my Australian colleagues
I am speaking just for myself.

We have heard many speakers who are for, or who are against. I am
one of the third group, those who don't know, and I guess that there are
many like me. In the last resort the decision will have to be made in
November, in three months' time, by the Executive Committee, and from
what I have seen and heard, there is no more unanimity in the E.C.
than here in the General Assembly. However, the Executive Committee
must come to a decision, and whatever decision it will make, there will
be those who interpret the decision politically and who will dislike
the decision and blame the Executive Committee for it.
Mr. Chairman, I am sorry for you !

Professor SEMADENI (POLAND) :

There were several questions asked what Polish mathematicians think of a
Congress ; though I heard many doubts, I never heard : "No, there shouldn't
be a Congress".
I consider the possible danger of isolation, so one of our main objectives
at IMU would be to think of international cooperation and try to keep
mathematicians together. I think the mathematical community means good
mathematical contacts.

Professor NAGY (HUNGARY) : among the many interesting and very important
propositions and aspects that have been arisen in this discussion, I consider
Professor Benjamin's proposition as reflecting exactly my point of view.
It is impossible to cancel an invitation which was given by the Polish
mathematicians in Helsinki and welcomingly repeated during this debate.
We have taken it for granted that delegates and the Polish National Committee
express the general expectation and wish of the Polish mathematicians, and I
don't think these have derived since. So I join the general proposition.

Professor J.F. ADAMS (U.K.) *(statement nb. 13)*.

1) - I came to Poland with an open mind about the problems of holding the ICM in Warsaw in 1983.

2) - I attach great importance to preserving the unity of the IMU, but I think it will not be endangered by a decision, in either sense, of the Executive Committee in November, since I assume that the grounds will be seen to be the appropriate ones.

3) - As between holding a Congress with reduced attendance, and holding none, it seems to me that to hold one would be more useful to mathematicians in general, and also more useful to our colleagues in Poland, with whom we have the greatest sympathy.

4) - The difficulties of holding a Congress are therefore of two sorts ; practical and psychological. On the practical side, I assume that beds, food and lecture-rooms can be provided ; if not, the organizers will not go ahead. The psychological side relates to the perceptions by the outside world of conditions in Poland, and their reaction to those perceptions.

5) - Although I did not say it in details at the time, it seems that those reactions may contain a blend of factors. Some mathematicians may wish to influence affairs in Poland. I think that in applying a small lever to a large problem, they may hurt the lever more that they help the problem. My personal loyalties would lead me to attend a Congress even if it were under unfavourable conditions ; since I assume most countries contain some who feel similarly, I would deplore it if a few countries took a dogmatic stand corporately. Moreover, some situations are improved simply by the presence of witnesses ; to secure this profit, it is not necessary for the witnesses to lay down terms and conditions under which they will attend.

I think the first concern of our Executive should be the number of private individuals who feel that they would experience some moral unease or discomfort if they come. We can do much to reassure such people.

6) - I have been most favourably impressed by the frank speaking of our Polish colleagues. On my return to England, I shall advise my colleagues that, in my opinion, doubts and scruples of the sort mentioned should not stop them from attending a Congress in Poland.

7) - I proposed a motion, which Professor Benjamin later kindly reworded for me ; it was intended to inform the Executive Committee that the Assembly preferred that the Congress should take place if possible. Of course, I proposed such a motion because I felt that it reflected the wishes of a majority and that it might be useful to the Executive Committee to have those wishes apparent.

8) - I withdrew this motion when it appeared that sufficiently many of those I expect felt that it would not be helpful to have it put to the vote.

Professor OLECH : *(statement nb. 14)*.

Reacting to the resolution introduced by Professor Adams, he expressed
an opinion that it should not be voted. In his opinion, this resolution
would not be accepted unanimously and this will put the Executive Committee
in a situation that any decision it takes in November about the Warsaw
Congress will be against some members of the Union and this might be danger-
ous for the future of the Union.

He thanked Professor Adams for proposing such a move which pleased very
much the Polish delegation and himself in particular since it is his
sincere wish to have the Congress in Warsaw if possible, but he also
mentioned that he and his colleagues will not like if the Warsaw Congress
issue would harm in any way the future of the Union.

He believes that any decision taken by the Executive Committee in November
does not carry such a danger since the E.C. members do not represent any
country or any organization but only themselves as individuals. Thus it is
better to leave the question without any instruction from the General
Assembly and let each member of the Executive Committee to draw individually
conclusions from the discussion of General Assembly, which in his opinion,
supplied a lot of information about opinions of different member-countries
on the issue.

At this stage, the Chairman proposed to close the discussion and to summarize
the spirit in which it was led.
He thinks that first of all the General Assembly recognizes and appreciates
very much the work of the Polish mathematicians for this Congress and that
everybody wishes to arrange a Congress in 1983 that be successful and that
the Polish mathematicians wish to hold.
This discussion has been very frank and very interesting ; but points of
view have been very varied, so it is his hope that everyone puts his opinion
in a written statement that will come to the E.C. when it tries to find a
solution.

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The General Assembly decided to leave the final decision
about the 1982 ICM to take place, or not, in Warsaw, in
August 1983, to the present Executive Committee of IMU ;
the Executive Committee will have an exceptional meeting
to this effect, in Paris, on November 13, 1982.
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§ 7. FINANCE AND DUES.

The Finance and Dues Committee makes the following report.

Professor Gehring (Chairman of the Committee) :

Three points are to be considered :

A) - Four-years statement for the period 1978-1981 ;

B) - Increase of the unit contribution ;

C) - Approval of the Budget of the Union for the period 1983-1986 (§ 9 of the Agenda).

A) - Four-years statement 1978-1981 :

This document (ANNEX 5) has been established from the yearly audited reports and is therefore expressed in US Dollars currency.
A detailed "Four-Years Income and Expenditure Statement" has also been prepared, giving comparison between IMU authorized budget and real income and expenses, for 1978 and for 1979-1981, expressed in Swiss Francs.
After having carefully examined all items and having received due answers from the Secretary, the Committee unanimously approved this statement.

No comment being made on this point,

> The General Assembly approves the four-years audited accounts and statements for the period 1978-1981.

B) - Increase of the unit-contribution.

The unit-contribution (Swiss Frs. 600,00) has been fixed at the Vancouver General Assembly in 1974 and its rate has not been changed since.
In the meantime severe raise in expenditure has occured due to inflation all over the world, and the Swiss Franc currency, although stable, has nevertheless decreased its value about 30% during this eight-years period.
The Executive Committee proposes an increase in the unit contribution about 40% : this supposes that the unit would go up to Sw. Frs. 850- per year.
The Budget Committee discussed this increase and carefully looked up to the budget for the forthcoming 4-years period and to some savings that could be made.
The conclusions of the Committee were as follows :

a) - the unit has never been changed for the past eight years and does not take into account the real inflation ; a 40% increase seems reasonable.

b) - about the income of the Union, it appears that some sources lowered, the main decrease being seen in the ICSU contribution and can be foreseen as going down.

c) - some administrative costs - secretarial help for instance, and travel expenses for the E.C. meetings - cannot be lowered ; it appears that the budget is so balanced :

      40% on adminstrative expenses (schedule A),
      60% on scientific activities (schedule B).

Therefore, the Committee, after a long discussion :

. having checked all items in the administrative part, that cannot be reduced, and maintaining as essential the Development Fund into schedule B,

. having looked at the proposed budget for 1983-1986 and not seeing how an increase of dues could be avoided,

approves unanimously the proposed budget for 1983-1986 and the raise on the dues from Sw. Frs. 600- to Sw. Frs. 850- starting January 1, 1983.

No comment being made on these points, the chairman asks for approval.

> The General Assembly approves the increase of dues of the Union and the proposed budget for the years 1983-1986, as they have been recom-mended by the Finance and Dues Committee.

The Budget for the forthcoming period 1983-1986 is shown in ANNEX 6.

§ 8. ELECTIONS.

The Nominating Committee met on August 9, 1982 and proposed the following slates :

a)   EXECUTIVE COMMITTEE OF IMU :

President :	J. MOSER
Vice-Presidents :	L.D. FADDEEV
	J.P. SERRE
Secretary :	O. LEHTO
Members :	S. MIZOHATA
	G.D. MOSTOW
	M.S. NARASIMHAN
	C. OLECH
	J. PALIS Jr.

The retiring President, Lennart CARLESON, will be an ex-officio member of the Executive Committee, without vote.

b)   EXECUTIVE COMMITTEE OF ICMI :

President :	J.P. KAHANE
Vice-Presidents :	B. CHRISTIANSEN
	Z. SEMADENI
Secretary :	A.G. HOWSON
Members :	B.F. NEBRES
	M.F. NEWMAN
	H.O. POLLAK

The retiring President, Hassler WHITNEY will be an ex-officio member of the Executive Committee of ICMI,
The IMU representative at ICSU-CTS, the President of IMU and the Secretary of IMU are ex-officio members of the Executive of ICMI.

c)   COMMISSION ON DEVELOPMENT AND EXCHANGE (C.D.E.)

Chairman :   H. HOGBE-NLEND

Members :   R. AYOUB
             J. CEA
             J.O.C. EZEILO
             A. FIGA'-TALAMANCA
             D.G. de FIGUEIREDO
             HOANG TUY
             M. IMMANALIEV
             LEE PENG YEE

The President of IMU and the Secretary, are ex-officio members of the CDE.

The General Assembly then proceeded to the three votes, by secret ballot according to the Statutes of the Union.

The slates presented by the Nominating Committee for the nomination of the Executive Committee of IMU, the Executive Committee of ICMI, and the Commission on Development and Exchange (C.D.E.), are all three accepted by the General Assembly for 1983-1986.

The lists of the new Committees are given in ANNEX 7.

The IMU representative at ICSU-CTS (Committee for the Teaching of Science) will be Professor HOGBE-NLEND, chairman of C.D.E.

§ 9. APPROVAL OF BUDGET and § 10 ICM AND PROGRAM COMMITTEE FOR 1986 have already been discussed.

§ 11. RESOLUTIONS.

The chairman gives the word to Professor T.B. BENJAMIN, chairman of the Resolutions Committee. Six Resolutions are proposed for approval.

All six Resolutions are unanimously approved by the General Assembly.

They are listed in ANNEX 8.

§ 12. NEXT MEETING OF THE GENERAL ASSEMBLY.

Resolution 1. :

The General Assembly resolves that the next meeting of the General Assembly be held at a time and place conveniently linked to the International Congress of Mathematicians at Berkeley, California, in 1986.

Nobody asking for any other item, the Chairman closes the IXth General Assembly on August 9, 1982, at 5.20 p.m.

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ANNEX 1.

LISTS OF PARTICIPANTS

a) *EXECUTIVE COMMITTEE*

      President :   L. CARLESON
      Vice-President : M. NAGATA
      Secretary :   J.L. LIONS
      Members :   E. BOMBIERI
                     J.W.S. CASSELS
                     M. KNESER
                     O. LEHTO
                     C. OLECH

b) *DELEGATES*

ARGENTINA	II	C.G. GREGORIO ...
AUSTRALIA	III	B.H. NEUMANN M.F. NEWMAN ...
AUSTRIA	II	... ...
BELGIUM	III	... ...
BRAZIL	III	J. PALIS Jr. I. SIMON ...
BULGARIA	II	L. ILIEV B. SENDOV P. KENDEROV (alternate) I. RAMADANOV (alternate)
CAMEROON	I	H. HOGBE-NLEND
CANADA	III	P. FILLMORE M. SION R. VAILLANCOURT
CHINA-TAIWAN	I	T.-Y. HWANG C.-R. HWANG (alternate)
CUBA	I	...
CZECHOSLOVAKIA	III	M. FIEDLER M. GREGUS A. KUFNER

DENMARK	II	L. KRISTENSEN ...
A.R. EGYPT	I	A.A. ASHOUR
FINLAND	II	I. LOUHIVAARA O. MARTIO
FRANCE	V	J.P. BOURGUIGNON J. CEA C. GODBILLON C. HOUZEL J.L. VERDIER
FEDERAL REPUBLIC OF GERMANY	V	M. BARNER D. PALLASCHKE H. WERNER ... ...
GERMAN DEMOCRATIC REPUBLIC	III	L. BUDACH G. LASSNER K. MATTHES
GREECE	I	...
HONG-KONG	I	...
HUNGARY	III	A. CSASZAR L. LOVASZ B. SZÖKEFALVI-NAGY
ICELAND	I	...
INDIA	III	M.S. NARASIMHAN A.R. REDDY ...
IRAN	I	...
IRELAND	II	F. HOLLAND ...
ISRAEL	II	... ...
ITALY	IV	B. SCIMEMI E. VESENTINI V. VILLANI ...
JAPAN	V	S. MIZOHATA M. NAGATA K. OKAMOTO ... ...
D.P.R. OF KOREA	I	...

REPUBLIC OF KOREA	I	J. KIM
MEXICO	I	...
NETHERLANDS	III	P.C. BAAYEN
		...
		...
NEW ZEALAND	I	...
NIGERIA	I	E.N. CHUKWU
		F. IDOWU (alternate)
NORWAY	I	K.E. AUBERT
PHILIPPINAS	I	B.F. NEBRES
POLAND	IV	B. BOJARSKI
		Z. CIESIELSKI
		Z. SEMADENI
		K. URBANIK
		A. SCHINZEL (alternate)
PORTUGAL	I	...
RUMANIA	II	G. MARINESCU
		...
SINGAPORE	I	PENG YEE LEE
SOUTH-AFRICA	II	G. GRÄSSER
		...
SPAIN	II	P. ABELLANAS
		...
SWEDEN	III	G. BJÖRCK
		C.O. KISELMAN
		V. THOMEE
SWITZERLAND	III	H. CARNAL
		J. MOSER
		...
TURKEY	I	...
UNITED KINGDOM	V	J.F. ADAMS
		M. ATIYAH
		T.B. BENJAMIN
		J.M. HOWIE
		B. JOHNSON

U.S.A.	V	D. BLACKWELL
		F. GEHRING
		G.D. MOSTOW
		E. STEIN
		S. ULAM
U.S.S.R.	V	A.P. ERSHOV
		L.D. FADDEEV
		A.A. GONTCHAR
		S.M. NIKOLSKII
		V.S. VLADIMIROV
		A.B. ZISCENKO (alternate)
VIET-NAM	I	LE VAN THIEM
YUGOSLAVIA	II	I. IVANSIČ
		M. PEROVIČ

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ANNEX 2

AGENDA

1. Opening of the Assembly.

2. Address by the President, including Announcement of Prizes and Report of the Site Committee.

3. Appointment of Committees :
    (i)   Credential Committee, (ii) Resolutions Committee, (iii) Tellers,
    (iv)   Committee on Finance and Dues, (v) Nominating Committee.

4. Rules of Procedure for the election of the ICMI Executive Committee.

5. New Members.

6. Review of the Activities of the Union :
    A. ((i) Symposia, Conferences, (ii) IMU Lectures, (iii) IMU Fellowships,
        (iv) I.C.M.I., (v) Commission on Development and Exchange.

    B. (i)   IMU Bulletin,   (ii) World Directory of Mathematicians.

7. Finance and Dues :

    A. Financial reports for the years 1978-1981.

    B. Proposals for 1983-1986 : the E.C. proposes an increase in dues.

    C. Budget estimates for 1983-1986.

8. Elections :
        (i)   Executive Committee, (ii) I.C.M.I., (iii) C.D.E.

9. Approval of the 1983-1986 Budget.

10. International Congress of Mathematicians, (ICM '82 → 83)
    Program Committee.

11. Adoption of Resolutions.
12. Next Meeting of the General Assembly.
13. Any other item with the permission of the President.

ANNEX 3

ADDRESS OF THE PRESIDENT

Ladies and Gentlemen,

It is a pleasure for me to welcome you all to this Ninth General Assembly of the International Mathematical Union. A special welcome goes to those countries which have not earlier participated in our meetings. We have the goal that our Union should represent mathematicians from every part of the world and all progress in this direction is of great satisfaction to us all.

This meeting takes place under very special circumstances. As you know, our General Assembly usually meets at the same time as our International Congress and this is even prescribed in our statutes as the normal arrangement. The political development in Poland that started last December 13 caused great concern in all groups associated with the arrangement of the 1982 Congress. After extensive consultations - also including a visit by members of the Executive Committee to Poland in February this year - it was decided that the Congress should be postponed to August 1983, with the following understanding :

"A discussion of the situation will take place at the meeting of the General Assembly in Warsaw, August 1982. On the basis of this discussion, and in the light of the scientific outlook for a congress in August 1983, the Executive Committee will reconfirm or cancel the congress in November 1982. No alternative site will be considered".

You will find this discussion as item 10 on the Agenda. I will not dwell further on this point now, except for the following. During the discussions many points of view existed and many different aspects had to be considered. However, from all sides great care was shown not to create difficulties for the future work of our Union and to obtain a situation where a good congress could be held. I wish to thank all persons involved in these difficult deliberations for their constructive attitude and I am sure that you join me in thanking the Polish Organizing Committee for all their efforts, and join me in my hopes that these efforts will be rewarded by a successful congress next year.

This brings me to a point that should be stressed at every General Assembly of our Union. We all recognize IMU as an organization of individual mathematicians from the whole world for the promotion of mathematics as scientific field. For practical reasons, these individual mathematicians have to be organized in groups in our statutes, called "National Adhering Organisations" and "countries". However the statutes (cf. § 4) are :

"The term "country" is to be understood as including diplomatic protectorates and any territory in which independent scientific activity in mathematics has been developed, and in general shall be so construed as to secure the broadest and more effective participation of mathematicians in the scientific work of the Union".

The aim of the statutes is to bring together all mathematicians, and officers of the Union are always elected in their capacity of mathematicians and are not representing any special groups or interests. I find it of the greatest importance that this aspect of our Union as a non-political organization is kept in mind. Clearly, mathematics, as essentially all human activities, is related to political questions, but these questions should be handled through other channels.

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At the 1978 General Assembly, a resolution was passed with the following wording :

"The Eighth General Assembly of IMU endorses the resolution of the 15th General Assembly of ICSU on free circulation of scientists and requests the Executive Committee, elected by this Assembly, to do its best to implement the spirit and the letter of this resolution, paying special attention to the attendance of invited speakers or other participants at the ICM and other scientific gathering sponsored by IMU.
The President-elect of the IMU is respectfully requested to report to the next General Assembly on this matter".

This reports can be made quite short. All organizers of meetings sponsored by the IMU have been informed of this ICSU resolution and representatives of the IMU have been appointed. No case of violation of the resolution has come to my knowledge. Let us hope that this positive development will go further and lead to a situation where eventually no political restrictions will interfere with exchange of scientific information.

The postponement of the Congress has also created a new situation for the FIELDS Prizes. As it has been customary, the Executive Committee, appointed in 1979 a Committee for the award of the FIELDS prizes.

This Committee consisted of Professors J. ARAKI, N. BOGOLUBOV, P. MALLIAVIN, D. MUMFORD, L. NIRENBERG, A. SCHINZEL, C.T.C. WALL and myself as chairman. After extensive studies and consultations, a decision was reached this spring to be presented at the Congress. In the situation that has now arisen, the Executive Committee considered it appropriate that the names of the FIELDS Prize winners should be announced at the present meeting and the awards given at the Congress that we all hope can be held here next year.

Accordingly, I have the pleasure to inform you that the 1982 FIELDS Prizes in mathematics have been awarded to the following three mathematicians :

> Alain CONNES,   C.N.R.S., France
>
> William THURSTON,   Princeton University,   USA,
>
> S.T. YAU,   Institute for Advanced Study, Princeton, USA.

Another consequence of the postponement of the Congress is that the question for the 1986 International Congress has to be considered in the context of this meeting.
A Site Committee has been appointed and has met here in Warsaw and I shall read to you its report.

REPORT FROM THE SITE COMMITTEE FOR ICM 1986 :

The Site Committee for the 1986 International Congress of Mathematicians met on August 7, 1982, in Warsaw. It was decided to gratefully accept the invitation of the U.S. National Academy of Sciences, to hold the congress at the University of California, at Berkeley.
The Congress will be organized according to the provisions in Resolution 10 and 11 of the Eighth General Assembly of IMU. This has been accepted by the head of the U.S. delegation at this Ninth General Assembly, Professor G.D. Mostow, and a confirmation will be requested from the National Academy of Sciences.

I suggest that we express our thanks to the U.S. Committee that has worked on this proposal and wish them all good luck in the hard work that lies ahead of them.

Let us come to the activity of the Union during the past four years. In the special issue of our Bulletin that was published for this meeting, you will find information on elections, symposia and meetings organized by IMU, on publications, fellowships and reports of the chairmen of our Commissions, and reports on our finances.
We shall come back to these matters later in our Agenda.
You will also find a list of decisions taken by the members and by the Executive Committee by postal ballots. I should like to spend some time on two such decisions.

In May 1981, new rules for the election of the Executive Committee were adopted. These rules will apply at this General Assembly for the first time. Accordingly, you have in front of you the list of nominations from the Executive Committee and I remind you of your possibility to add names of candidates.

The rules are as follows :

"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 specified office :
President, Secretary General, Vice-President or Member at large of the E.C.".

A Nominating Committee will also be appointed shortly. The same procedure will be used for the Commission on Development and Exchange - C.D.E. - and you will find the nominations in your file. It is our intention to use these rules also for ICMI. The situation here is a little more complicated and we shall come back to this under item 4 of the Agenda.

I should like to use this opportunity to call your attention to two general problems which concern our field and which I believe are very important for the future development of mathematics. They concern us first as individual mathematicians but to some extend also our Union.

The first point I have in mind is the publication system and costs for libraries. In my opinion, we must try to find a system by which information on recent results is spread rapidly and efficiently to people working in the field. Suitable tools here are reviews, preprints and symposia, and other forms of international exchange. The importance of personal contacts and easy access to travels cannot be exaggerated, and the importance increases as the volume of information increases. The classical solution was printed journals but with time this possibility becomes more impractical and more costly. In my opinion journals should be reserved for results of lasting importance and we should try to reduce the size of this sector.

One of the main difficulties to-day is that editors of journals do not seem aware of, or interested, in the present double role of the journals. It is easy to identify this problem but it does not have an easy solution. We should, however, have it in mind when we decide on our own publications, on our students' publications, when we take part in editorial committees, in library committees. By a gradual change, we may obtain a more satisfactory situation. In 1970, the Union took the initiative to coordinate the work of the reviewing journals. I don't know how successful this can be considered to be; however, there lay be new initiatives possible in this sector for IMU.

The second aspect concerns our relations to the applied areas and more specifically to the development of computers. In our statutes our objects are defined to promote "the developemnt of mathematical science in any of its aspects, pure, applied or educational".

In my opinion, IMU - in its present organization - overemphasizes pure mathematics and its teaching. There exist, besides us, two large international organizations in computer science, organizations in mathematical physics, in the history of mathematics, in probability, and probably more. The present Executive Committee has taken steps to collaborate with these organizations but much more needs to be done. There are difficult border line questions but we must try to increase the relations to the applied areas and to counter a development whereby pure mathematics become isolated. In my opinion this question is of fundamental importance for the coming Executive Committee of IMU.

There is no direction of applied mathematics which has so much importance for the future as problems related to computers. We are here in the beginning of a development where problems of a mathematical nature will relate essentially all aspects of life. There are also an increasing number of papers, and journals concerned with computer-related problems and an increasing almost unlimited market for young people. It seems of great importance that mathematicians take their part in this development.

For this reason, the Executive Committee has with great satisfaction, accepted an offer by the University of Helsinki to finance a prize in :

Mathematical Aspects of Information Science

to be given every four years to a young mathematician working in this area.
It is planned to be given at the International Congresses.

In honour of Rolf NEVANLINNA, who died in 1980 and who served as our president 1958-1962, and who also took the initiative to the computer organization in Finland in the 1940s , the prize has been named the :

NEVANLINNA Prize

The first award was planned for this year and a Committee consisting of J.L. LIONS J. SCHWARTZ and A. SALOMAA has made decision of a winner. As in the case of the FIELDS medals, the award will be given at the planned congress in 1983 and it is my privilege to inform you of the decision.

The 1982 NEVANLINNA Prize has been awarded to :

Robert TARJAN, Stanford University, USA.

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ANNEX 4

TERMS OF REFERENCE OF I.C.M.I. (INTERNATIONAL COMMISSION ON MATHEMATICAL
INSTRUCTION)

(a) The Commission shall consist of :

    (1) - the members of an Executive Committee as specified in (b) below,·
    elected by IMU,

and

    (2) - one national delegate from each member nation as specified in (d)below.

(b) 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.

(c) In all other respects the Commission shall make its own decisions as to its
internal organization and rules of procedure.

(d) Any National Adhering Organization wishing to support or encourage the work
of the Commission may create, or recognize, in agreement with its National
Committee, a National Sub-Commission for ICMI to maintain liaison with the
Commission in all matters pertinent to its affairs.
The National 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 (a).

(e) 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 develop-
ment of mathematical education at all levels, and to secure public apprecia-
tion 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 struc-
ture.

(f) The Commission may, with the approval of the Executive Committee of IMU, coopt,
as members of ICMI, suitably chosen representatives of non-IMU countries, on·
an individual basis.

(g) 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 determi-
ned by agreement between the Commission and the Executive Committee of IMU.

(h) The Commission shall file an annual report of its activities with the Execu-
tive Committee of IMU, and shall file a quadrennial report at each regular
meeting of the General Assembly.

INTERNATIONAL MATHEMATICAL UNION

Four-Years Statement : 1978 - 1981   in US Dollars

	1978	1979	1980	1981	TOTAL
INCOME	81,102	94,231	77,592	55,524	308,449
EXPENDITURE					
a) ROUTINE : E.C. meetings and Union's representation General Assembly (78)	17,590	5,158	5,084	7,523	35,355
b) SCIENTIFIC ACTIVITIES Conferences, Colloquia, Grants, IMU Lectures, I.C.M.I., C.D.E. ICM	34,579	22,955	34,412	41,100	133,046
c) PUBLICATIONS	3,676	24,626	1,948	3,538	33,788
d) ADMINISTRATIVE EXPENSES and General Office Expenses	11,141	10,689	13,045	13,008	47,883
	66,986	63,428	54,489	65,169	250,072
BALANCE	14,116	17,459	10,618	<9,645> <12,130>	
ACCUMULATED BALANCE	106,151	123,610	134,228	112,453	
PROVISION GENERAL ASSEMBLY & I.C.M.	--	13,344	12,485	12,130	
		136,954	160,057	150,412	

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FOUR-YEARS INCOME AND EXPENDITURE STATEMENT
(compared with Authorized budget)

EXPENDITURE:	1978 (period 75-78) Authorized Annual Expenditure Sv.Frg	US.$	Actual Expenditure US.$	1979 (period 79-82) Authorized Annual Expenditure Sv.Frg	US.$	Actual Expenditure US.$	1980 Authorized Expenditure US.$	Actual Expenditure US.$	1981 Authorized Expenditure US.$	Actual Expenditure US.$
SCHEDULE A										
1. a) Secretarial help IMU Office	9.000	5.202	6.251	11.700	7.313	6.054	6.842	6.539	6.648	6.456
b) Secretarial help IMU President	1.000	578	--	1.300	812	--	760	--	739	--
c) I.C.M.I.	900	520	300	900	563	500	526	1.000	511	2.000
d) C.T.S.	600	347	300	900	563	300	526	400	511	400
2. Office expenses (incl. postage)	4.000	2.312	68	5.200	3.250	168	3.041	35	2.955	16
3. Travel expenses of the E.C.	14.000	8.092	14.400	18.200	11.375	5.158	10.643	5.084	10.341	7.523
4. President's & Secretary's exp.	1.500	867	1.480	1.850	1.156	436	1.082	1.371	1.051	700
5. Contribution to ICSU	2.300	1.329	1.008	2.500	1.562	1.190	1.462	1.367	1.420	1.280
6. Publication & Dissemination of the IMU Bulletin	2.000	1.156	3.676	2.600	1.625	1.060	1.520	1.553	1.477	3.399
7. Audit fee	450	260	1.340	1.000	625	1.645	585	1.753	568	1.533
8. General Assembly	2.000	1.156	3.190	2.000	1.625	1.625	1.520	1.520	1.477	1.477
9. World Directory of Mathematicians	10.000	5.780	--	10.000	6.250	23.566	5.848	395	5.682	139
10. Contingencies	2.500	1.445	394	2.500	--	396	1.462	580	1.420	623
	50.250	29.044	32.407	61.250	38.281	40.473	35.817	20.077 (1.520)	34.800	24.069 (1.477)
SCHEDULE B										
1. Scientific Activities (Symposia & Conferences, IMU Lectures, I.C.M.I., Commission of Dev.& Exch.)	48.000	27.746	1.500	60.000	37.500	10.096 / 12.060	35.088	13.750 / 16.700	34.091	22.370 / 11.630
2. IMU Fellowship Fund	6.000	3.468	--	6.000	3.750	799	3.509	--	3.409	--
3. C.C. for ICM	3.000	1.734	(spent in 76 & 77) 9.470	4.000	2.500	--	2.339	3.962	2.273	7.100
4. IMU Development Fund	--	--	21.646	10.000	6.250	(Travel Grants 82)	5.848		5.682	
5. Subvention to ICM '82	18.750	10.838	34.573	18.750	11.719	(11.719) 22.955	10.965	(10.955) 34.412	10.653	(9.645) 41.100
	75.750	43.786	66.946	93.750	61.719	63.428	57.740	54.489	56.108	65.169
TOTAL OF EXPENDITURE:	126.000	72.830	81.102	160.000	160.000	94.231				
INCOME:	Budgeted		Received							
1. Membership dues	85.000		47.575	95.000		54.684		51.233		44.603
2. ICSU subvention	35.000		12.000	35.000		13.000 + 6.500 (UNESCO)		8.000 + 13.000 (UNESCO)		12.600
3. Sales of W.D.M.	5.000		8	7.000		7.764		5.482		1.520
4. Special Appeal Fund	--		--	25.000		5.062		6.756		422
5. Contingencies (Interests and Exchange Difference)	--		1.207 / 20.312	--		759 / 6.472		1.204 / -8.053		1.628 / -5.242
TOTAL OF INCOME:	126.000		81.192	160.000		94.231		77.592		55.524

BALANCE AS PER DECEMBER 31, 1981

in US Dollars (RECAPITULATION PERIOD 1978-1981)

	1978	1979	1980	1981
ASSETS :				
Banks :				
. Chase Manhattan Bank US$	15,450	19,727	3,731	12,306
. Schweizerische Kreditanstalt				
Current Account S.F.	39,959	55,818	87,701	75,344
Current Account US$	--	1,606	3,419	539
Deposit Account S.F.	44,886	49,020	46,530	46,130
. Banque Degroof B.F.	444	386	--	--
. Société Générale F.F.	44	6,536	4,973	1,646
. Svenska Handelsbanken				
Current Account S.Kr.	178	--	--	--
Deposit Account S.Kr.	5,087	--	--	--
. Day Ichikangyo Yen	--	4,978	9,477	10,377
. Bank Handlowy, Warsaw US$	--	--	--	9,328
Petty cash :	--	42	16	22
	101,048	138,113	155,847	155,694
Prepayments :	7,500	--	5,000	8,500
Loans :	956	983	983	--
	109,504	139,096	161,830	164,194
LESS :				
. Sundry creditors and accruals	3,353	2,142	1,773	13,782
. Provision for G.A. and I.C.M.	--	13,344	25,829	37,959
EXCESS OF ASSETS				
OVER LIABILITIES :	106,151	123,610	134,228	112,453
BALANCE, January 1st,	92,035	106,151	123,610	134,228
EXCESS OF INCOME				
OVER EXPENDITURE :	14,116	17,459	10,618	<12,130>
ACCUMULATED BALANCE				
at December 31 :	106,151	123,610	134,228	112,453

ANNEX 6.

IMU BUDGET 1983 - 1986.

The Finance and Dues Committee recommends the following budget
for each of the years 1983-1986, on the understanding that
transfers are permitted from one item to another, and from
one year to another, provided that no appropriation from
Schedule B is allowed to augment the provision made in Schedule A.

AUTHORIZED ANNUAL EXPENDITURE FOR THE PERIOD 1983-1986 :

EXPENDITURE :

SCHEDULE A.	Swiss Francs
1. a) Secretarial help, IMU office	15.000
b) Secretarial help, President	1.500
c) I.C.M.I.	4.000
d) C.D.E.	3.000
e) C.T.S.	900
2. Office expenses (including postage)	6.000
3. Travel expenses of the E.C.	19.000
4. President's and Secretary's expenses	1.500
5. Contribution to ICSU	3.000
6. Publication and Dissemination of the IMU Bulletin	3.000
7. Audit fee	1.500
8. General Assembly 1986	2.600
9. World Directory of Mathematicians	10.000
10. Contingencies	2.000
	73.000

SCHEDULE B.	
1. Scientific Activities a) Symposia and Conferences b) IMU Lectures c) I.C.M.I. d) C.D.E.	70.000
2. IMU Fellowship Fund	4.000
3. Consultative Committee for ICM 1986	4.250
4. IMU Development Fund	6.000
5. Subvention to ICM 1986	18.750
	103.000

INCOME :

1. Membership dues (unit contribution 850 SF.)	136.000
2. ICSU Subvention	25.000
3. Sales of W.D.M.	7.000
4. Special Appeal Fund	8.000
	176.000

EXECUTIVE COMMITTEE

1983 - 1986

- = - = -

President :   J. MOSER   Eidgenossische Technische Hochschule (E.T.H.)
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INTERNATIONAL COMMISSION ON MATHEMATICAL INSTRUCTION
I. C. M. I.
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EXECUTIVE COMMITTEE
1983-1986

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                      O. LEHTO   Secretary of IMU
                      H. HOGBE-NLEND, IMU Representative at CTS-ICSU

COMMISSION ON DEVELOPMENT AND EXCHANGE (C.D.E.)

-=-

Chairman :   H. HOGBE-NLEND   Université de Bordeaux-I
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Members ex-officio :

              J. MOSER   President of IMU

              O. LEHTO   Secretary of IMU

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ANNEX 8.

RESOLUTIONS OF THE IXth GENERAL ASSEMBLY OF IMU.

RESOLUTION 1.

The General Assembly resolves that the next meeting of the General Assembly be held at a time and place conveniently linked to the International Congress of Mathematicians at Berkeley, California, in 1986.

RESOLUTION 2.

The General Assembly approves the financial reports for the years 1978-1981 as printed in the IMU Bulletins.

RESOLUTION 3.

The General Assembly resolves that the Scientific Programme of the 1986 International Congress of Mathematicians (i.e. the invited addresses and the general arrangements of the Programme) be decided by a Programme Committee consisting of nine members.
The Executive Committee shall determine the number of members to be appointed by the Organizing Committee of the Congress ; this number shall be at least two and at most four. The remaining members of the Programme Committee shall be appointed by the Executive Committee, except that its chairman shall be appointed by the President of the Union.

RESOLUTION 4.

The General Assembly resolves that the recommendation for the location of the 1990 Congress be made by a Committee appointed by the Executive Committee of the Union and having on it at least two representatives of the Organizing Committee of the 1986 Congress.

RESOLUTION 5.

The IXth General Assembly warmly approves the work of the Executive Committee during the period 1978-1982. Particular thanks are extended to Professor Lions for his excellent service as Secretary of the Union over the last eight years.

RESOLUTION 6.

The General Assembly expresses warm gratitude to the Organizing Committee for its hospitable reception, excellent arrangements and admirable frankness. We leave this meeting with the sincere wish that our best hopes for a 1983 Warsaw Congress will be realized.

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FORTHCOMING SCIENTIFIC ACTIVITIES.

At its meetings in 1982, in Paris, on April or in Warsaw, the E.C. of IMU decided to grant a sponsorship to the following conferences :

1 9 ·8 3
- *VIIth International Conference on Mathematical Physics*, BOULDER (Colorado) August 2-11, 1983.

As in the past conferences in this series, this conference tries to cover developments in mathematical physics over two years and expects about 500 participants from all over the world.
The chairman of the Conference Committee is Professor E. Lieb (Princeton).

The Executive Committee of IMU decided, in its April meeting, to sponsor this Conference, with a financial amount of $ 4,000.
Professors T. Kato and D. Ruelle are asked to be IMU representatives and they agreed in principle.

- *Second International Conference on Operator Algebras, Ideals and their Applications in Theoretical Physics*, Leipzig (DDR) September 25 to October 2nd, 1983.

The Conference will gather about 200 foreign participants and 100 scientists from the G.D.R.
The Organizing Committee includes Ac. G. Lassner, A. Uhlmann (Leipzig), A. Pietsch (Iena) and Professors H. Baumgaertel (Berlin), H. Bosek (Greifswald) K. Schmueldgen (Greifswald).

The E.C. of IMU, in its meeting at Warsaw, decided to support this Conference. The names of the IMU representatives and the amount of financial support will be discussed at the next meeting of the new Executive Committee in Spring 1983.

- *Summer School on the History of Mathematics, University of Toronto* (Canada), July 25- August 5, 1983.

Following some correspondence initiated in 1981, Professor C.J. Scriba descri- bes the growing interest among mathematicians teaching at the college and uni- versity levels to help students when introducing them to the main lines of developemnt of mathematics or to the most important features of the growth of mathematics, as a science through the centuries.

The E.C. of IMU, in its meeting at Paris, November 13, decided to support the Summer School on the History of Mathematics, provided the dates do not interfere with ICM.
A financial support is offered, amounting to $ 2,000-.

- *ICMI-JSME REGIONAL CONFERENCE ON MATHEMATICAL EDUCATION*, Tokyo (Japan). October 10-14, 1983.

The general theme of this Regional Conference is "School Mathematics in and for changing Societies".
The program will be divided into Plenary sessions (3 or 4) and reports from different countries and Working Group sessions, according to school levels, and in teaching methods.

In its meeting at Paris in April, the E.C. of IMU considered favourably a request for support, which is given through the C.D.E. and amounts to $ 1,000-.

_1 9 8 4_ :

- _International Colloquium on "Vector Bundles on Algebraic Varieties"_, Bombay, _Tata Institute of Fundamental Research_, January-February 1984.

  Following the series iniatiated in 1956 by the T.I.F.R. and co-sponsored by IMU, a new Colloquium is organized early 1984. Topics to be covered would include, for instance, classifications and modulii problems of principal bundles over projective varieties, as well as the study of structure of Vector bundles over affine varieties ; projective and quadratic modules over non-commutative rings ..
  The Organizing Committee consists of Professors M.P. Murthy, M.S.Narasimhan, M.S. Raghunathan, S. Ramanan and R. Sridharan.

The E.C. of IMU, in its meeting of August 7, in Warsaw, considered this request and decided to support the proposed Colloquium.
It has been decided that the newly elected Executive Committee would decide of the amount to be granted, with the understanding that this would not be less than US $ 5,000-. The IMU representatives will also be nominated by the new E.C.

- _I.C.M.E. V_ (_International Congress on Mathematical Education_),
  Adelaïde, Australia - August 24 to August 30, 1984.

  The I.C.M.I. has accepted an invitation from the Australian Academy of Sciences to hold the Vth I.C.M.E. at the University of Adelaïde.

  The Congress Program : determination of the major emphasis in the Congress Program is the responsibility of the International Program Committee (IPC), appointed by the ICMI. M.F. Newman of the Australian National University is the chairman of the IPC.
  It is expected that the program will span all levels of education and discuss problems of general interest while recognizing different cultural perspectives. A principal objective of the Congress will be to facilitate both professional and personal contact amongst participants, working groups in mathematics education and to encourage overseas participants to visit Australian colleagues in their home educational institutions.

  Announcements : A detailed announcement will be issued in Spring 1983, with the scientific program and will include a registration form.
  For comments, please write to :

  > ICMI 5
  > Wattle Park Teachers' Centre
  > 424 Kensington Road
  > Wattle Park. South Australia 5066
  > Australia.

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WORLD DIRECTORY OF MATHEMATICIANS : 6th Edition - Final Report

1)   Number of copies

        Produced   2,000
        Sold through Kinokuniya   481
        Sold at the Bureau   709
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2)   Income from the Sale and Bank Charge

In US Dollars (Swiss account)		Sale	Charge
	In 1978	$ 1,269.95	$ 18.48
	In 1979	$ 5,296.47	$ 162.14
	In 1980	$ 1,884.29	$ 71.70
	In 1981	$ 655.23	$ 34.53
	In 1982	$ 40.00	$ 5.33
	Total	$ 9,145.94	$ 291.98
	Balance	$ 8,853.96	

In JPY (Japanese account)		Sale	Interest
	In 1978	¥ 109,000	0
	In 1979	¥ 174,052	¥ 16,450
	In 1980	¥ 815,500	¥ 39,200
	In 1981	¥ 188,642	¥ 42,799
	In 1982	¥ 228,500	¥ 35,157
	Total	¥1,515,694	¥133,606
	Sum	¥1,649,300	

3)   Cost of production

        Income from IMU (SFr 40,000) ¥ 4,935,801
        Spent   Printers   ¥ 4,300,000
                       Secretary Works   ¥   230,000
                       Miscell.   ¥   10,730
                                     US $ 279.00

        Spent total   ¥ 4,540,730 + $ 279.00

4)   Postage stamps

                        1979   ¥   520,080
                        1980   ¥   90,000
                        1981   ¥   30,300
                        1982   ¥   3,000
                        Total   ¥   543,380

5)   Payment to AMS for the 7th edition US$ 14,155.25

        Remark   Swiss account was closed in this year.
                   Japanese account is keeping ¥ 36,407 (at the end
                   of Nov. 1982) which is advance payment for the
                   7th edition.

                              Masayoshi Nagata
                              Masayoshi Nagata
                              Bureau of WDM
                              Date Nov. 30, 1982

        I examined bank documents and other related documents, and
confirmed that these figures are correct.

                              Hiroshi Toda
                              Hiroshi Toda

WORLD DIRECTORY OF MATHEMATICIANS
VIITH EDITION

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December 1982.