

IMU

BULLETIN
OF THE
INTERNATIONAL MATHEMATICAL UNION

No. 13
July 1977

SECRETARIAT :

COLLEGE DE FRANCE
11, Place Marcelin Berthelot
75231 PARIS CEDEX 05 FRANCE

INTERNATIONAL MATHEMATICAL UNION

EXECUTIVE COMMITTEE

(1 January 1975 - 31 December 1978)

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Professor G. Vranceanu

Secretary : Professor J.L. Lions

Members : Professor E. Bombieri
Professor M. Kneser
Professor O. Lehto
Professor M. Nagata
Professor L.S. Pontrjagin

Past President : Professor K. Chandrasekharan

Professor FROSTMAN passed away.

Professor Otto Frostman died on December 29th, 1977.

He contributed several classical results in Mathematical Analysis, and in particular in Potential Theory.

He has been Secretary of IMU since January 1967 until the end of 1974.

As it was agreed by the General Assembly of IMU in Vancouver, Professor Frostman kept, after 1974, and until his death, the very heavy responsibility of the World Directory of Mathematicians.

He was indeed working on the preparation of the new edition of the W.D.M. at the time of his death.

We present to Mrs. L. Frostman and to Professor and Mrs. Frostman's family our most sincere condolences.

*The Executive Committee
of I.M.U.*

WORLD DIRECTORY OF MATHEMATICIANS

After Professor Frostman's death, Mrs. Lisa Frostman and her son, Mr. Lars Frostman, were extremely helpful in organizing all data in order to pursue the work on the new edition of the W.D.M. We deeply thank them for their precious help.

Professor M. Nagata very kindly accepted the responsibility of organizing, at the Kyoto University, the preparation of the next edition.

Details about this preparation will be given in the next Bulletin.

We have already sent letters to National Adhering Organizations. We repeat here the most important point :

All new information concerning the W.D.M. should be sent to :

Professor M. NAGATA
Bureau of the World Directory of Mathematicians
Mathematics Department
Kyoto University
KYOTO 606, JAPAN

All the information already collected by Professor Frostman has been sent to Professor Nagata through the kind help of Mrs. Frostman.

SCIENTIFIC ACTIVITIES OF THE UNION

We summarize below the scientific activities of the Union since July 1976 :

COLLOQUIUM ON MODULAR FORMS : held at Bonn University, July 2-14, 1976, on the topic :

Arithmetic properties of modular forms and modular curves, with emphasis on the case of one variable. This is a very active field to-day.

The main subjects were :

- . rational points on modular curves,
- . relations between forms in 1 and 2 variables,
- . Galois representations attached to modular forms,
- . p-adic functions.

The Organizing Committee consisted in Professors F. Hirzebruch and D. Zagier, from Bonn University and Professor J.P. Serre, from the Collège de France, Paris.

The main lecturers were : A. Ogg (Berkeley, U.S.A.), B. Mazur, J. Tate (Harvard, U.S.A.), N. Katz (Princeton, U.S.A.), O. Atkin (Chicago, U.S.A.), A. Brumer (Columbia University, U.S.A.), together with the Organizers.

FOURTH INTERNATIONAL SYMPOSIUM ON TOPOLOGY : held in Prague from August 23 to 27, 1976.

Professor J. Novák was the chairman of the Organizing Committee which consisted of Professors Z. Frolik, J. Hejčman, M. Hušek, M. Katesov, V. Koutnik, V. Pták, M. Sekanina, S. Schwarz, V. Tenkova.

The total number of participants was of 217 (164 from abroad and 53 from Czechoslovakia), representing 16 countries.

The Proceedings of this Conference are going to be published in two volumes, one by ACADEMIA, Publishing House of the Czechoslovak Academy of Sciences, and another one by Springer-Verlag.

INTERNATIONAL SYMPOSIUM ON ALGEBRAIC GEOMETRY : this Symposium took place at the Research Institute for Mathematical Sciences of the Kyoto University, Kyoto, Japan, from January 10 to 14, 1977.

Professor M. Nagata was the chairman of the Organizing Committee. The support for this important meeting was decided at the 1975 meeting of the Executive Committee granting a sum of US Dollars 5,000- for travel expenses to foreign participants. The Union representatives were Professors E. Bombieri and C.S. Seshadri.

INTERNATIONAL COLLOQUIUM ON TOPOLOGY AND ALGEBRA : was held at the Eidgenössische Technische Hochschule, Zürich, from April 12 to 16, 1977.

The Organizer was Professor E. Specker, chairman of the Program Committee, and the Colloquium was dedicated to Professor B. Eckmann.

The total number of invited participants was about 40 and the main invited speakers were Professors Adams, Borel, Bott, Dold, Hirzebruch, Hilton, James, Kodaira, McLane, Milnor, Serre, Stallings, Swan.

The Union granted a sum of US Dollars 1,000- for travel expenses to foreign participants.

THE UPPSALA 1977 INTERNATIONAL CONFERENCE ON DIFFERENTIAL EQUATIONS, held from April 18 to 23, 1977, in connection with the 500th Anniversary of the University of Uppsala, and supported by this University, the Swedish Government and I.M.U. and sponsored by the Swedish Academy of Sciences and its National Committee for Mathematics. Professor Åke Pleijel was responsible for the Organizing Committee.

The particular aim of the Conference was to feature recent advances in the fields of Weyl's theory and its generalizations and the spectral problem for linear differential equations. This subject was broadened by taking up the related questions and other problems of general interest. Part of the Conference was devoted to applications in different fields.

The main speakers were Professors F.V. Atkinson, R. Conti, W.A. Coppel, A. Devinatz, M.S.P. Eastham, W.N. Everitt, A. Friedman, J.K. Hale, H. Langer, B.M. Levitan, V.A. Marcenko, C. Olech, L. Pontrjagin, F.S. Rofe-Beketov, B. Szökefalvi-Nagy, J. Weidman, L. Lorch, R. Nevanlinna. The Proceedings of this Conference will be published in the Lecture Notes Series by Springer-Verlag.

INTERNATIONAL CONFERENCE ON THE MATHEMATICAL PROBLEMS OF THEORETICAL PHYSICS : was held from June 6 to 15, 1977 at the University of Rome (Italy). The Organizing Committee consisted in Professors G.F. Dell'Antonio, S. Doplicher, G. Gallavotti, G. Jona-Lasinio and one of the features of the Conference was to have comprehensive and advanced review talks, of about one hour to provide orientation and perspectives to younger workers in the wider interdisciplinary context of Mathematics and Physics.

Thus the following subjects were discussed :

Classical Mechanics and Field Theory, Quantum Field Theory, Dynamical Systems, Equilibrium Statistical Mechanics and Stochastic Processes, Non-Equilibrium Statistical Mechanics, Scattering Theory, Operator Algebras, Functional Integration.

The Conference was co-sponsored by IMU and the Istituto Nazionale di Fisica Nucleare.

INTERNATIONAL SYMPOSIUM ON ANALYSIS AND ITS APPLICATIONS, held at Ibadan, Nigeria, from June 25 to July 2nd, 1977.

The purpose of this Symposium was to bring together research workers in the West African countries working in the field of Functional Analysis and its Applications in order to identify areas of application of Functional Analysis and encourage cooperation among research workers.

The meeting had Instructional Lecture Series on the following topics :

- . Some Mathematical Models of Population Genetics, by Professor T. Poulsen,
 - . Topological Vector Spaces, by Professor S.O. Iyahan,
 - . Semi-groups of non linear contractions in Banach spaces, by Prof. I.Miyadera,
 - . Indefinite Inner Product Spaces and their linear Operators, by Prof. J. Bogнар.
- and

Invited Lectures, by :

Professor M. De Wilde, Dr. M. Ajtai, Prof. F. Cardoso, Prof. D. Ruelle, Professor A. Maduemezia, Prof. G.R. Allan, Prof. Pelczynski, Dr. T. Owusu-Ansah, Dr.M.Akkar, Dr. C.O.A. Sowunmi, Prof. G.E. Tanyi, Dr. T. West, Prof. A. Vignoli, Professor J.A. Donaldson, Prof. W. Zelazko.

INTERNATIONAL SYMPOSIUM ON APPROXIMATION THEORY, held at Campinas, Brazil, from August 1st to 6th, 1977.

The Organizing Committee was formed by S. Machado, L. Nachbin, J.B. Prolla, G.I. Zapata. There were 36 participants from Africa, America and Europe. Nineteen lectures were given by the following lecturers :

R. Aron (Ireland), J. Barros-Neto (U.S.A.), K.D. Bierstedt (R.F.A.), P. Boland (Ireland), B. Brosowski (R.F.A.), J.P. Carneiro (Brazil), S. Machado (Brazil), P. Malliavin (France), R. Meise (R.F.A.), L. Nachbin (Brazil), L. Narici (U.S.A.), P. Noverraz (France), O. Paques (Brazil), D. Pisanelli (Brazil), J.B. Prolla (Brazil), M. Valdivia (Spain), D. Wulbert (U.S.A.), G.I. Zapata (Brazil).

The Proceedings of this Symposium will appear late 1978 under the title "Approximation Theory and Functional Analysis", North-Holland Publishing Cy, Amsterdam.

INTERNATIONAL COLLOQUIUM ON UNIVERSAL ALGEBRA, held at Esztergom, Hungary, from June 27 to July 1st, 1977.

This Colloquium was organized by the Janos Bolyai Mathematical Society ; the members of the Organizing Committee were : Pr. E. Tamas Schmidt, chairman, Béla Csákány, vice-chairman, Ervin Fried, Ferenc Gécseg, András Huhn, László Lovász, István Némethi, L.A. Skornjakov, Rudolf Wille.

110 participants gathered, 83 coming from abroad. 87 lectures were held and 8 invited speakers delivered plenary talks of one-hour each. They were : Professors Garrett Birkhoff (U.S.A.), Trevor Evans (U.S.A.), Ernest G. Manes (U.S.A.), Jurgen Schmidt (U.S.A.), Alden F. Pixley (U.S.A.), Dimitri Matveevic Smirnov (U.S.S.R.), Lev Anatolievic Skornjakov (U.S.S.R).

The rest of the lectures was divided into three sections :

1) pure universal algebra ; 2) special classes of structures ; 3) lattice theory. Applications to the theory of computing were included in Section 2.

INTERNATIONAL CONFERENCE ON DIFFERENTIAL EQUATIONS AND THEIR APPLICATIONS :
"EQUADIFF IV", Prague, Czechoslovakia, August 22-26, 1977.

This Conference was the fourth in this series of EQUADIFF Conferences.

The chairman of the Organizing Committee was Professor Jiri Fäbera, President of the Czechoslovak National Committee for Mathematics.

Five invited lectures were given in plenary sessions by Professors O. Boruvka (Czechoslovakia), W.N. Everitt (U.K.), I. Marek (Poland), J. Necàs (Czechoslovakia) O. Oleinik (U.S.R.).

58 invited lectures and 157 communications were given in the following sessions :

- 1) - Ordinary Differential Equations,
- 2) - Partial Differential Equations,
- 3) - Numerical Methods and Applications.

The Conference gathered 354 mathematicians, coming from 23 different countries. The Proceedings of the IVth EQUADIFF CONFERENCE are published in two parts :

Part A : invited papers, by Springer-Verlag, Inc.

Part B : contributed papers, by the Society of Czechoslovak Mathematicians and Physicists.

INTERNATIONAL CONFERENCE ON COMBINATORIAL THEORY, Canberra, Australia, August 16-28, 1977.

The Organizing Committee was composed of : Dr. Jennifer Seberry, chairman, Dr. D.A. Holton (Deputy Chairman), Prof. B. Neumann, Mr. J.P. O'Halloran, Dr. C.H. Praeger, Dr. N.F. Smythe, Prof. P. Erdős.

Professors P. Erdős and E. Bombieri were IMU representatives.

This Conference attracted 89 participants, 26 coming from overseas. The invited speakers were : Professors J.A. Bondy (Canada), P. Erdős (Hungary), M. Hall Jr. (U.S.A), H. Hanani (Israël), F. Harary (U.S.A) D.R. Hughes (U.K.), R.C. Mullin (Canada), T.V. Narayana (Canada), J.N. Srivastava (U.S.A.), R.G. Stanton (Canada), W.T. Tutte (Canada), M.E. Watkins (U.S.A.).

The Proceedings of the Conference (invited lectures and instructional lectures) will be published by the Academy of Science presumably in conjunction with Springer-Verlag, Inc.

INTERNATIONAL COLLOQUIUM ON THEORY OF SETS, FOUNDATION OF MATHEMATICS was held in Beograd, Yugoslavia, from August 29th to September 2nd, 1977.

This Symposium was co-sponsored by the Matematički Institut, Beograd, and I.M.U. The Organizing Committee was composed of Prof. D. Kurepa, chairman, V. Devidé, M. Stojaković, S. Presić, M. Durić, secretary, and the Program Committee was : Professors G. Kreisel, P.J. Cohen, A. Hajnal, I.L. Ershov, P. Vopenka, and the members of the Organizing Committee.

The aim of the Symposium was to get an insight into the present situation of the set theory and foundations of Mathematics and to point at the new directions of investigations in these fields. Within this framework, the areas of interest of the Symposium were various and divided into plenary and section plenary sessions with invited and contributed papers. Problem sessions, panel discussions and seminars were included in the program of this Symposium.

INTERNATIONAL CONFERENCE ON OPERATORS ALGEBRAS, IDEALS AND THEIR APPLICATIONS : Leipzig, D.D.R., September 25-28, 1977.

This Conference was organized by the Akademie der Wissenschaften der D.D.R. with the following Organizing Committee : Drs. H. Baumbärtel (Berlin), G. Lassner (Leipzig), A. Pietsch (Iena), and A. Uhlmann (Leipzig), K. Maurin and A. Pelczynski (Warszaw), M.K. Poliwanow (Moscow), L. Schwartz (Paris).

The I.M.U. representatives were Professors D. Kastler (Marseille, France) and B. Sz.-Nagy (Szeged, Hungary).

253 participants attended this Conference, coming from 22 different countries, and there were 107 participants from D.D.R.

Nineteen one-hour lectures were given in plenary sessions and 110 short 20-minutes lectures in the three sections, in an intensive and friendly working atmosphere.

The International Mathematical Union made a special effort in 1977 : world-wide spreading conferences as well as covering a large range of mathematical subjects, pure, applied and interdisciplinary. Following UNESCO's rules, the amount granted by I.M.U. for support to these conferences has been spent on travel expenses to foreign participants. Out of the above list, ICSU supplementary grant under UNESCO contracts helped in supporting the Ibadan Conference (Nigeria), the Rome Conference in June and the Conference "Equadiff IV", in Prague.

I.M.U. LECTURES :

I.M.U. sponsored a series of lectures given at UCLA, Mathematics Department, by Professor A.G. Vitushkin, on the invitation of Professor H.A.Dye, chairman, from April 14 to June 11.

Professor Vitushkin's manuscript will be published in "L'Enseignement Mathématique" under the title "Representation of functions by means of superpositions".

EXCHANGE COMMISSION :

Professor Dr. Z. Semadeni, from the Polish Academy of Sciences, was able to visit different places in the South-East Asia under a grant of the Exchange Commission of I.M.U. on the occasion of his lectures at the S.E.A Conference in Manila, in May-June 1978.

Dr. Balasubramanian, from the Tata Institute of Fundamental Research, Bombay, spent a three-months period at the Mittag-Leffler Institute, from March to May, 1978, under an I.M.U. Fellowship grant.

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

Two main meetings were held in 1977, after decision was made at the General Assembly of I.C.M.I. at Karlsruhe :

INTERNATIONAL CONFERENCE ON THE PROBLEMS OF TRAINING OF TEACHERS OF MATHEMATICS, held in Pécs (Hungary), August 23-27, 1977,

and

INFORMATICS AND MATHEMATICS IN SECONDARY SCHOOLS, IMPACTS AND RELATIONSHIPS , Varna (Bulgaria), September 13-18, 1977.

I.M.U. BULLETIN :

The following issues of the IMU Bulletin were published covering the period June 1976 to June 1978 :

Number 11, July 1977 : gives an up-to-date recapitulation of National Adhering Organizations and National Committees for I.M.U.

Number 12, December 1977 and I.M.U. Special Number for the Eighth General Assembly present the Agenda and the reports for the forthcoming General Assembly in Otaniemi, Finland, August 11 and 12, 1978.

EXECUTIVE COMMITTEE OF I.M.U.

The Executive Committee of I.M.U. met in Paris on April 17 and 18, 1978, at the Collège de France.

After having examined the administrative and financial reports of the Union and the scheduled scientific activities, the main topics that were discussed were :

- (i) the preparation of the next International Congress of Mathematicians, Helsinki, August 15-23, 1978, and of the General Assembly, just before,
- (ii) the reinforcement of the activities of the Union in favour of the Developing countries,
- (iii) the strengthening of joint activities with IUTAM.

FINANCIAL REPORT :

for the period January 1st, 1977 to December 31st, 1977.

1. I N C O M E .

The Union had the following sources of income during the year :

- A) - Dues from the member nations,
- B) - UNESCO/ICSU contribution,
- C) - World Directory of Mathematicians,
- D) - Grants,
- E) - Interests on Bank Accounts,
- F) - Exchange difference.

A). During the financial year 1977, dues were paid at the :

i)- CHASE MANHATTAN BANK, by :

| | | |
|-----------|-----|---------------------------------------|
| Argentina | I | 1976 (remaining part) 1977 |
| India | III | 1975 (remaining part) 1976 |
| Iran | II | 1976 (remaining part) |
| Israël | II | 1977 |
| U.S.A. | V | 1977 |
| | | Total : US \$: <u>5,100,45</u> |

ii)- SWISS CREDIT BANK, by :

| | | |
|-----------------------|-----|-----------------|
| Arab Rep. of Egypt | I | 1977 |
| Australia | III | 1977 |
| Austria | II | 1977 |
| Belgium | III | 1976 |
| Bulgaria | II | 1976 1977 |
| Canada | III | 1976 1977(*) |
| China-Taïwan | I | 1976 1977 |

SWISS CREDIT BANK (continued) :

Brought forward : US \$ 5,100,45

| | | |
|-----------------------------|-----|-----------------------|
| Cuba | I | 1977 |
| Czechoslovakia | III | 1977 |
| Denmark | II | 1977 |
| Finland | II | 1977 |
| Fed. Republic of Germany | V | 1976 |
| " | | 1977 |
| Dem. Republic of Germany | III | 1977 |
| Greece | I | 1977 |
| Hungary | III | 1977 |
| Iceland | I | 1976 |
| " | | 1977 |
| Ireland | II | 1977 |
| Italy | IV | 1977 |
| Japan | V | 1977 |
| Dem. Republic of Korea | I | 1976 |
| " | | 1977 |
| The Netherlands | III | 1977 |
| New-Zealand | I | 1977 |
| Nigeria | I | 1977(*) |
| Norway | I | 1977 |
| Poland | IV | 1978 |
| Portugal | I | 1975 (remaining part) |
| " | | 1976 |
| Singapore | I | 1977 |
| South-Africa | II | 1977 |
| Spain | II | 1977 |
| Sweden | III | 1977 |
| Switzerland | III | 1977 |
| Turkey | I | 1976 |
| United Kingdom | V | 1977 |
| U.S.S.R. | V | 1977 |
| Yugoslavia | II | 1977 |

Total Sw.Frs. : 79,500-

US \$: 32,160--

To bring forward: US\$ 37,260.45

Brought forward : US\$. : 37,260.45

iii) - SOCIETE GENERALE, by :

| | | |
|----------|---|------|
| Cameroon | I | 1977 |
| France | V | 1977 |
| Turkey | I | 1977 |

Total Frs.Frs. :

US\$. : 3,064.--

TOTAL INCOME FROM MEMBERSHIP DUES US\$.: 40,324.--
=====

(*) The following subscriptions were paid in 1977, but cashed in 1978:
Canada (III), Iran (II), Nigeria (I), Portugal (I).

NB.: Exchange rates at the date of bank statements using UNESCO's
standard rates of exchange.

Subscriptions were due from the following countries at the end of 1977:

1974 : Brazil (I),
 1975 : Brazil (I)
 1976 : Brazil (I), Mexico (I),
 1977 : Belgium (III), Brazil (I), India (III), Mexico (I), Rumania (II).

B). UNESCO/ICSU contribution 1977 :

US\$ 12,000- in two instalments US\$.: 12,000.-
=====

C). WORLD DIRECTORY OF MATHEMATICIANS :

Sales : US\$.: 756.-
=====

D). GRANTS

St. Pounds 200-
Frs.frs. 10,000-- US\$.: 2,411.-
=====

E-. INTERESTS on Bank accounts :

a) Swiss Credit Bank (private account)
 SW.Frs : 2261- = US\$ 1,041-
 b) Svenska Handelsbanken (private acc.)
 Kr.S. : 1484- = US\$ 311-
 c) Bank Degroof
 B. Frs.: 33- = $\frac{US\$ \quad 1}{US$.1,353-}$

Interests on bank accounts (continued):

Brought forward :US\$. 1,353

less : bank charges 440

Left : US\$. 913 US\$ 913--
=====

F). EXCHANGE DIFFERENCE : + US\$ 7,552--
=====

RECAPITULATION OF THE TOTAL INCOME RECEIVED DURING THE YEAR /

| | |
|----------------------------|-----------------|
| A). MEMBERSHIP DUES : | US\$. 40,324- |
| B) UNESCO/ICSU SUBVENTION | " 12,000- |
| C). SALES FROM W.D.M. | " 756- |
| D). GRANTS | " 2,411- |
| E). INTERESTS ON BANK ACC. | " 913- |
| F). EXCHANGE DIFFERENCE | " <u>7,552-</u> |

TOTAL : US\$.63,956-
=====

2. E X P E N D I T U R E

A. Actual expenditure in 1977 compared with the amounts authorized by the Seventh General Assembly.

The authorized figures are shown in Swiss Frs. and in US Dollars (exchange rate at December 31, 1977: Sw.Frs. 2,17 = US \$ 1.).

The real expenditure is only shown in US Dollars (exchange rates at the date of payment).

E X P E N D I T U R E

SCHEDULE A

| | A u t h o r i z e d | | A c t u a l | D i f f e r e n c e | |
|--|---------------------|--------|---------------|---------------------|---------|
| | Sw. Frs | US \$ | US \$ | - US \$ | + US \$ |
| 1.a) Secretarial help (IMU office) | 9.000 | 4,147 | 3,418 | 723 | |
| 2) Secretarial help (President) | 1.000 | 461 | -- | 461 | |
| 3) I.C.M.I. | 900 | 415 | 300 | 115 | |
| 4) C.T.S. | 600 | 276 | 300 | | 24 |
| 2. Office expenses | 4.000 | 1,843 | 15 | 1,828 | |
| 3. Travel expenses E.C. | 14.000 | 6,452 | 3,895 | 2,557 | |
| 4. President's and Secretary's expenses | 1.500 | 691 | 100 | 591 | |
| 5. Contribution to ICSU (2,5% of annual dues) | 2.300 | 1,060 | 795 | 265 | |
| 6. Publication and dissemination of the IMU Bulletin | 2.000 | 922 | 1,168 | | 246 |
| 7. Audit fee | 450 | 207 | 1,175 | | 968 |
| 8. General Assembly | 2.000 | 922 | --- | 922 | |
| 9. World Directory of Mathematicians | 10.000 | 4,608 | 289 | 4,319 | |
| 10. Contingencies | 2.520 | 1.152 | --- | 1,152 | |
| | 50.250 | 23,156 | <u>11,455</u> | 12,939 | 1,238 |

SCHEDULE B

| | A u t h o r i z e d | | A c t u a l | D i f f e r e n c e | |
|---|---------------------|--------|---------------|---------------------|---------|
| | Sw. Frs | US \$ | US \$ | - US \$ | + US \$ |
| 1. Scientific activities Symposia, conferences IMU Lectures, Exchange Commission, I.C.M.I. | 48.000 | 22,120 | 17,473 | 4,647 | |
| 2. IMU Fellowship Fund | 6.000 | 2,765 | --- | 2,765 | |
| 3. Consultative Committee for I.C.M. '78 | 3.000 | 1,382 | 4,792 | | 3,410 |
| 4. Subvention to the ICM '78 (including Travel grants to young ma- thematicians from de- veloping countries). | 18.750 | 8,641 | 7,500 | 1,141 | |
| | 75.750 | 34,908 | <u>29,765</u> | 8,553 | 3,410 |

S U M M A R Y

| | | |
|--|-------|------------------------|
| TOTAL OF INCOME | US \$ | 63,956 |
| TOTAL OF EXPENDITURE | | |
| under SCHEDULE A | US \$ | 11,455 |
| under SCHEDULE B | " | 29,765 |
| EXCESS OF INCOME OVER EXPENDITURE | US \$ | <u>22,736</u> ===== |

B. Details of expenditure under UNESCO/ICSU grant and IMU grant
(Schedule B of the budget).

| 1. a) <u>Symposia and Conferences</u> : | Allocated | Paid | |
|--|---------------|----------------------|---------------|
| | US \$ | Sw.Frs | US \$ |
| KYOTO, January 10-14, 1977 | 5,000 | | 5,000 |
| ZURICH, April 10-12, 1977 | 1,000 | 2,440 | 957 |
| UPPSALA, April 18-23, 1977 | 2,000 | 4,880 | 1,914 |
| ROME, June 6-15, 1977 | 2,000 | | 2,000 |
| ESZTERGÖM, June 27-July 1 | 1,000 | | 1,000 |
| IBADAN, June 25-July 2 | 1,000 | | 1,000 |
| PRAGUE, August 22-26, 1977 | 1,000 | | 1,000 |
| CAMPINAS, Aug. 1-6 | 1,000 | | 1,000 |
| BEOGRAD, Aug. 29-Sept 2 | 1,000 | | 1,000 |
| LEIPZIG, Sept.20-30, 1977 | 1,000 | | 1,002 |
| | <u>16,000</u> | | <u>15,873</u> |
| CANBERRA, Aug. 16-28, 1977 | 3,000 | already paid in 1976 | |
| b) <u>IMU Lectures</u> : | | | |
| Professor A.G. Vitushkin (UCLA) | <u>1,000</u> | | <u>1,000</u> |
| c) <u>EXCHANGE COMMISSION</u> | | | |
| Professor Z. Semadeni c/o SEAMS | <u>600</u> | | <u>600</u> |
| 2. - <u>CONSULTATIVE COMMITTEE</u> (Oct. 1977) | | | |
| Travel and "per diem" expenses | | | <u>4,792</u> |
| 3. - <u>I.C.M. '78</u> | | | |
| Budgeted provision | | | <u>7,500</u> |
| TOTAL OF EXPENDITURE : | | US \$ | <u>29,765</u> |
| | | | ===== |

TOTAL OF EXPENDITURE :

a) Under IMU Budget :

| | | |
|-------------------------|---------------------------|---------------------|
| <u>SCHEDULE A</u> | US\$. 11,455 | |
| | Scientific Activities : | US\$. 2,600 |
| <u>SCHEDULE B</u> | Consultative Committee : | " 4,792 |
| | Contribution to ICM '78 : | " 7,500 |
| | | <u>US\$. 26,347</u> |

b) Under UNESCO/ICSU grant :

| | | |
|-------------------------|--------------|---------------------|
| UNESCO grant for 1977 | US\$. 12,000 | |
| Brought forward from 76 | " 2,873 | |
| | | <u>US\$. 14,873</u> |

TOTAL EXPENDITURE FOR THE YEAR : US\$ 41,220

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WORLD DIRECTORY ACCOUNT

as per December 31, 1977

NOTE FROM THE AUDIT :

Due to Professor Frostman's death, the Union was not able to receive in due time the relevant vouchers concerning the income and expenditure related to the sales of the W.D.M. The funds received or spent on this matter were said to be all taken in and out of one bank account at the SVENSKA HANDELSBANKEN.

For this reason, it was decided by the Union to consider the surplus of income over expenditure for 1977 as being the increase of cash at the bank between January 1, 1977 and December 31, 1977.

Although we were able to verify the bank balance at year end, we were not able to express an opinion on the movements which took place during the year on this account.

FINANCIAL STATEMENT FOR THE PERIOD JANUARY 1, 1977 TO DECEMBER 31, 1977.

| 1) | US \$. | Sw.Frs. | Frs.frs | Sw.Frs. Sté Gle | B.Frs | S.Krs | S.Krs | Frs.Frs Cash |
|--|---------------|----------------|---------------|--------------------|---------------|--------------|---------------|-----------------|
| a) Bank Balance in Current a/c on 1/1/1977 | 4,385 | 58.537 | 9.669 | 600 | 13.763 | 516 | | 00 |
| b) Bank Balance in Private a/c on 1/1/1977 | | <u>75.354</u> | | | | | 17.579 | |
| <u>Add: Receipts during 1975</u> | | | | | | | | |
| 1. Membership dues | 5,100 | 79.500 | 13.825 | 600 | -- | -- | -- | -- |
| 2. ICSU/UNESCO | 12,000 | | | | | | | |
| 3. Sales of WDM | | | | | | 1.616 | 2.000 | |
| 4. Grants | | 758 | 10.000 | | | | | |
| 5. Exchange differ. interests/bank charges | | <u>2.261</u> | | | 33 | | 1.484 | |
| 6. Inter-bank transfers | 1,694 | | 45.756 | | | | | 37.731 |
| 7. Reimbursement travel exp.EC | | | 350 | | | | | |
| | <u>23,129</u> | <u>138.795</u> | <u>79.600</u> | <u>1.200</u> | <u>13.796</u> | <u>2.132</u> | <u>21.063</u> | <u>37.731</u> |
| | | <u>77.615</u> | | | | | | |
| 2) Expenditure | | | | | | | | |
| SCHEDULE : | | | | | | | | |
| 1. a) Secret.help | | | | | | | | 16.800 |
| b) -d°- Pres.t | -- | -- | -- | -- | -- | -- | -- | -- |
| c) ICMI | 300 | | | | | | | |
| d) CTS | 300 | | | | | | | |
| 2. Office expenses | | | | | | | | 77 |
| 3. Travel exp. EC | 300 | 5.356 | 4.470 | | | | | 2.015 |
| 4. Pt's/Secretary expenses | | | 1.515 | | | | | |
| 5. Contrib.ICSU | 795 | | 5.880 | | | | | |
| 6. Public.bulletin | | | 5.500 | | | | | |
| 7. Audit fee (provisioned in '76 budget) | | | | | | | | |
| 8. General Assembly (reserved for 78) | | | | | | | | |
| 9. W.D.M. | | | | | | 1.380 | | |
| 10. Contingencies | | | | | | | | |
| 11. Bank charges | 19 | 118 | 10 | | | | | |
| " " P.K. | | 803 | | | | | | |
| 12. Inter bank transf. | | 26.549 | 37.731 | | | | | |
| SCHEDULE B. | | | | | | | | |
| 1. Scient. activit. | 8,600 | 9.825 | | | | | | |
| 2. Consult. Commit. | 972 | | | | | | | 18.717 |
| 3. Subvent. to ICM | | 18.750 | | | | | | |
| | <u>11,286</u> | <u>60.598</u> | <u>55.106</u> | <u>---</u> | <u>---</u> | <u>1.380</u> | <u>---</u> | <u>37.609</u> |
| | | <u>803</u> | | | | | | |
| BALANCE | 11,843 | 78.197 | 24.494 | 1.200 | 13.796 | 752 | 21.063 | 122 |
| BALANCE P.K | | <u>76.812</u> | | | | | | |

SUMMARY OF ASSETS AS ON 31.12.1977 :

| | US\$ | Sw. Frs | Sw. Frs (Sté.Glé) | Frs.frs | B.Frs | S.Krs | Cash F.frs |
|---------------------------|---------------------|----------------------|----------------------|---------------------|---------------------|---------------------|------------------|
| In current accounts | 11,843 | 78.197 | 1.200 | 24.494 | 13.796 | 752 | 122 |
| In private accounts | - | 76.812 | - | - | - | 21.063 | |
| NET ASSETS : ----- | 11,843 ===== | 155.009 ===== | 1.200 ===== | 24.494 ===== | 13.796 ===== | 21.815 ===== | 122 ===== |

Prepared by :

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