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## BERTRAND GAMBIE

Le 10 Janvier 1954, Bertrand Gambier, professeur honoraire à la Faculté des Sciences de Lille, a été enlevé à l'affection de sa famille, de ses élèves et de ses amis. Né le 31 Août 1879, ancien élève de l'Ecole Normale Supérieure, il accomplit la plus grande partie de sa carrière à l'Université de Lille.

Son oeuvre scientifique est considérable; elle comprend une centaine de Notes aux Comptes Rendus, plus de quatre vingt mémoires et articles consacrés à des recherches géométriques, sans compter de nombreuses publications d'ordre plus spécialement pédagogique. Citons parmi les thèmes qui inspirèrent le plus souvent ses recherches: la déformation des surfaces, la géométrie algébrique sur une courbe ou une surface, l'étude des surfaces de Voss-Guichard, les cycles paratactiques, les tétraèdres inscrits dans une quadrique et circonscrits à une autre quadrique, . . .

Il s'efforça dans ses travaux d'obtenir le maximum de clarté en réduisant les connaissances nécessaires pour aborder le sujet traité, en remplaçant le calcul par l'intuition géométrique chaque fois que c'était possible et en donnant des exemples explicites des figures étudiées. A trois reprises, l'Académie des Sciences manifesta, par l'attribution de prix enviés, la haute estime en laquelle elle tenait l'oeuvre scientifique de Bertrand Gambier.

*M. Decuyper (Lille).*

# UNION NEWS

## SECOND GENERAL ASSEMBLY

To the National Adhering Organizations of the International Mathematical Union.

1. As already communicated, the Second General Assembly of the International Mathematical Union will meet on August 31st and September 1st, 1954, at the Hague (Netherlands).

Sessions will be held at the International Academy (the former Royal Palace); the opening session will start at 9.30 a. m., August 31st, 1954.

2. In obedience to the By-Laws (1-3) of our Union, I have the privilege to transmit to you the following Agenda for the Second General Assembly adopted by the Executive Committee:

### A G E N D A

1. *Action on seating Delegates.*
  2. *Action on questions concerning membership.*
  3. *Appointment by the President of Working Committees.*
  4. *Resolution to form Nominating Committee — Implementation of same.*
  5. *Reception of Reports.*
  6. *Action on News Bulletin.*
  7. *Budget for 1955-'58 — Discussion of contributing membership.*
  8. *Proposals regarding Symposia.*
  9. *Work of the Executive Committee and Commissions — Addition and elimination of Commissions.*
  10. *Discussion of relations with ICSU and other Unions.*
  11. *Topics suggested by the National Adhering Organizations.*
  12. *Resolutions approving Reports.*
  13. *Elections.*
  14. *Resolution on Congress — Next meeting of General Assembly.*
  15. *Courtesy resolutions.*
3. With reference to point 11 of the Agenda the only proposal of business to be transacted is the following:  
*Production of a film about the rôle of Mathematics and mathematicians at the present time.*

The proposal, submitted by Professor G. Kurepa, Vice-President of the International Commission on Mathematical Instruction, is accompanied by the following statement:

«The tremendous importance of mathematics is present everywhere where mankind is active . . . suggests the idea of producing a film in order to show this universal rôle of mathematics. The film would show by pictures, forms, movements, action, music, etc., the presence of mathematics in every natural phenomenon as well as in every spiritual activity.

Such a film should contribute to a better comprehension of human knowledge and of perpetual interaction between the «external world» and the thinking subject — a part of the universal mutual interactions of different parts of the Universe. To be represented: various forms of matter, life, social phenomena, arts, technics, robots, infinitesimal and transfinite considerations, . . . with tendency to show mathematics and mathematicians respectively as very appropriate links between various fields of activity and various countries, to contribute to the social progress and mutual understanding of thinking individuals and groups respectively. Such a film should be a great document for future generations and an additional proof of the present activity of the International Mathematical Union.



This is implied by the § 1 c of Statutes of IMU, because the production of such a film would be a stimulus for the development and diffusion of mathematical thought and the adequate consideration of mathematics in its various interactions with other human activities ».

4. I take this opportunity to remind you that « a question which has not been put upon the Agenda may be discussed, but shall not be put to the vote unless a proposal to that effect be approved by a majority of the total number of votes assigned to the National Adhering Organizations ».

5. May I ask you to send a copy of this circular letter to all Delegates of your National Organization to the Second General Assembly, and to urge them (if they have not already done so) to forward immediately their requests for room reservations in the Hague. These requests should be addressed to the *Secretariat of the International Congress of Mathematicians*, 2e Boerhaavestraat 49, Amsterdam, Netherlands.

Rome, May 25, 1954.

The Secretary of the IMU  
*Enrico Bompiani*

## ANNUAL REPORT OF THE EXECUTIVE COMMITTEE

Covering the period February 15, 1953 — April 1, 1954, as required by By - Laws I-7.

### A -- ORGANIZATIONAL.

During the year 1953 the following nations have become members of the I. M. U.:

*Mexico*: Group I; National Adhering Organization - Sociedad Matematica Mexicana.

*India*: Group III; National Adhering Organization - The Ministry of Natural Resources and Scientific Research.

*Malaya - Singapore*: Group I; National Adhering Organization - The University of Malaya.

*Israel*: Group II; National Adhering Organization - The Israel Mathematical Union.

In addition, in 1953 *Sweden* and in 1954 *Austria*, have changed their membership from Group I to Group II. Thus the present membership of the I. M. U. is as follows (the group is indicated in parenthesis after the name of each nation):

Argentina (I), Australia (I), Austria (II), Belgium (III), Canada (II), Cuba (I), Denmark (II), Finland (I), France (IV), Germany (IV), Great Britain (V), Greece (I), India (III), Israel (II), Italy (IV), Japan (IV), Malaya - Singapore (I), Mexico (I); Netherlands (II), Norway (I), Pakistan (II), Peru (I), Spain (II), Sweden (II), Switzerland (II), U. S. A. (V), Yugoslavia (II).

Keeping in mind the correspondence reproduced below between the groups of adherence and the number of unit contributions:

Group	I	II	III	IV	V
Units	1	2	3	5	8

the present membership is equivalent to 71 units. This represents an increase of 10 units over the number at the time of the first General Assembly.

*Spain* has appointed Professor Rey Pastor as President and Professor Ricardo San Juan Llosat as Secretary of the Spanish National Committee for Mathematics.

## B — ACTIVITIES OF THE COMMISSIONS.

### 1. World Directory of Mathematicians.

A formal agreement has been reached (June 1953) between President Stone, in the name of the I.M.U., and Mr. J. W. Whitlock, Director of Butterworths Publications Ltd. (London), concerning the preparation of the manuscript of the above Directory. The main points of the agreement are as follows.

- 1) Butterworths will compile and prepare the manuscript at its own expense.
- 2) The I. M. U. will set up a special Committee to provide technical assistance and advice in the preparation of the manuscript.
- 3) A copy of the prepared manuscript will be supplied by Butterworths to I. M. U.
- 4) The I. M. U. will pay to Butterworths \$ 1,000 in 1953 and \$ 1,000 in 1954.
- 5) If the manuscript is acceptable to the I. M. U. it will be published under the sponsorship of the Union on terms mutually agreed upon.
- 6) Contract shall be construed in accordance with English Law.

In this connection the President appointed an advisory Committee to give technical assistance to Butterworths composed of the following members: Dr. P. Belgodère (Paris), Professor E. Bompiani (Rome), Professor W. V. D. Hodge (Cambridge), Professor H. Levy (London), Professor M. H. Stone (Chicago), Chairman.

The Advisory Committee was asked by the Chairman (July 13, 1953) a series of questions collected from the correspondence with Butterworths, concerning the content, the arrangement of names, the information about each individual, the abbreviations, the person listing names in each country, the supplements, the format and binding, and the copy of the material to be supplied to the Secretariat.

The Secretariat supplied to Butterworths (July 27, 1953) a list of names of members of the various National Committees who could help in answering pertinent questions.

A meeting of the Advisory Committee was called in Mr. Hutt's (Butterworths) office in London, on November 24, 1953. The meeting was attended by all members except Professor H. Levy. The results of the meeting may be summarized as follows:

1) It was agreed that the publishers were working along the right lines in including in the list all names of mathematicians taken from university registers, from the membership list of local mathematical associations, and from the author-lists of Mathematical Reviews.

2) There are difficulties at this moment concerning the definition of a mathematician, and it was agreed that this question be left to be decided after the complete list is available.

3) It was agreed that the information required for the list include the status, place of employment, mailing address, and year of birth. Degrees would not be included. It was also suggested and agreed that the country of domicile should stand out prominently in one particular place in each entry throughout the book.

4) The Secretary is to write to the various countries, requesting a list of academic titles together with suggestions for abbreviations.



5) It was agreed that there would be included in the manuscript a list of mathematical organizations containing the names and addresses of the principal mathematical societies and journals.

6) It was agreed that the list be initially prepared geographically, and that, when completed, it be sent to a nominated person in each country for remarks and criticism.

7) It was agreed that Professor *Levy* be approached with a request for his assistance in obtaining names from the U. S. S. R. Meanwhile the publishers will approach the American authorities who are providing a translating service from Russian journals.

8) It had been the publisher's intention to work first on the file list of the Commonwealth and then on that of the U. S. A. It was suggested, however, and agreed upon, that concurrently with this, the publishers must start working on the most difficult areas such as South America.

Consequent to point 4, a circular letter was sent by the Secretariat requesting a list of professional titles and their abbreviations. A few answers have been collected.

A total amount of \$ 1,000 has been paid (against ICSU - UNESCO funds) to Butterworths in 1953. A postal ballot on the allocation of \$ 500 from I.M.U. funds as a contribution for the preparation of the World Directory of Mathematicians to Butterworths Publications Ltd. in 1954 resulted in a unanimously favourable reaction from all voting member nations.

## 2. Dissemination of Mathematical Knowledge.

No report on the activities of this Commission has been received since the publication of the report of the Executive Committee to the General Assembly in 1953.

## 3. Exchange of Mathematicians.

The Committee has given assistance in some cases of exchange. Plans for the establishment of permanent services as mentioned in the last report are under consideration. The \$ 500 allocated for this Commission have not been spent; a transfer of this sum to 1954 has been requested of UNESCO through ICSU.

## 4. Abstracting and Reviewing.

The Secretariat has been in correspondence with the ICSU Abstracting Board (Professor *Boutry*). The Chairman of the Commission attended a meeting in Strasbourg (July 1953) of the ICSU Abstracting Board. It was agreed that no purpose would be served by associating the IMU's Commission with the Board.

An agreement has been reached by which *Zentralblatt* and *Mathematical Reviews* will exchange up to three hundred notices annually. This will result in increasing the usefulness of each journal. It is the Chairman's opinion that any major change in the policy of the two above mentioned journals can only result from the necessities of economic pressure. If and when this stage is reached, a new Commission specially appointed might be of great service, but at present both journals quite legitimately prefer to decide their own policies.

## 5. Directory of Mathematical Symbols.

No activity of this Commission is to be reported.



## 6. International Commission on Mathematical Instruction.

After the preliminary meeting of this Commission (I.C.M.I., or C.I.E.M. in French) in Geneva on October 20-21, 1952 a meeting was held in Paris on February 21, 1953. The decisions taken at the Paris meeting in 1953 have already been made known by publication of a report by Dr. Kurepa (International Mathematical News, Wien, Nr. 27-28, pp. 10-11), and of a letter from Châtelet to M. H. Stone prefaced by an invitation to the National Adhering Organizations (International Mathematical News, Wien, Nr. 29-30, pp. 6-8).

As a result of decisions taken at these meetings, the Commission is now composed of the following members: *H. Fehr* (Switzerland), Honorary President; *M. H. Stone* (U.S.A.), Member ex-officio; *A. Châtelet* (France), President; *D. Kurepa* (Yugoslavia), *S. MacLane* (U.S.A.), Vice-Presidents; *H. Behnke* (Germany) Secretary; *G. Ascoli* (Italy), Treasurer; *A. F. Andersen* (Denmark); *R. L. Jeffery* (Canada); *E. A. Maxwell* (United Kingdom), Members.

A further meeting of the Executive Committee was held in Paris on Jan. 15, 1954, attended by Professors *Châtelet*, *Kurepa*, *Behnke*, *Ascoli*, *Maxwell*, *Cerretsen* (for the Dutch Sub-commission and the Organizing Committee of the International Congress at Amsterdam), *Desforge* (Inspector General of Public Instruction in France), *Cardot* (representative of the Centre National de la Documentation Pédagogique in France). The main resolutions can be summarized as follows:

- a) Each adhering country to I. M. U. will constitute a National Sub-Commission, two Delegates of which will be members of I.C.M.I.
- b) The Secretary of I.C.M.I. will centralize all information and send a duplicate of significant documents to the President.
- c) The following expenditures are foreseen in 1954:

Secretariat of I.C.M.I.	Fr. Fracs.	80,000
Secretariat of the President	» »	80,000
Meetings and Symposia	» »	340,000
- d) I. C. M. I. wants its official journal « *L'Enseignement Mathématique* » to appear frequently: Professors *Châtelet* and *Fehr* will examine financial possibilities.
- e) At the International Congress in Amsterdam there will be an introductory report by Professor *Kurepa*, and other communications on « *The Rôle of Mathematics and the Mathematician in Contemporary Life* ».
- f) Reports by National Sub-Committees on mathematical training of students between 16 and 21 years of age will be submitted to I. C. M. I.
- g) An exhibit of mathematical books referring to the same age period will be organized in Amsterdam.

More detailed information on these various decisions is published in the International Mathematical News, Wien Nr. 31/32, pp. 2-9.

## 7. International Mathematical News.

The IMN has published in the year December 1952 — December 1953 (issues No. 23-30) 233 pages, of which only a few were supplied by the I.M.U. As 1700 copies are distributed free to mathematicians in 39 countries (many of which do not belong to this Union) this publication renders an excellent service in disseminating news about mathematical activities and information about the aims, problems, and resources of the Union, which otherwise could not reach the nations outside the Union.

The Editorial Committee of the IMN, which has received UNESCO aid through ICSU and this Union as detailed in E 3 below, would welcome suggestions from the Union designed to improve the publication in any way, as stated in a letter by Professor *W. W. Wunderlich*, of January 12, 1954.



## C — ACTIVITIES AT LARGE.

### 1. Symposia held in 1953.

Two Symposia sponsored by the I. M. U. were held in 1953.

- a) The first, a Symposium on Differential Geometry, jointly sponsored by the Unione Matematica Italiana and I. M. U. was held in Italy, September 19-26, 1953.

The following contributed papers were read by their authors:

#### *Padua, September 21.*

1. *J. A. Schouten* (Amsterdam, The Netherlands): «Sur les opérateurs différentiels du premier ordre du calcul tensoriel».
2. *P. Finsler* (Zürich, Switzerland): «Über die Berechtigung infinitesimalgeometrischer Betrachtungen».
3. *W. V. D. Hodge* (Cambridge, Great Britain): «Differential Geometry and the Theory of Algebraic Varieties».
4. *H. Hopf* (Zürich, Switzerland): «Zur Differentialgeometrie geschlossener Flächen im Euklidischen Raum».
5. *F. Severi* (Rome, Italy): «Funzioni quasi abeliane e gruppi continui ad esse inerenti».

#### *Venice, September 22.*

6. *A Kawaguchi* (Sapporo, Japan): «On the Theory of Non-Linear Connections».
7. *A. Lichnerowicz* (Paris, France): «Groupes d'holonomie et applications en géométrie riemannienne globale».
8. *W. Süß* (Freiburg i. Br., Germany): «Über affine und Minkowskische Geometrie».
9. *A. G. Walker* (Liverpool, Great Britain): «Riemannian Extensions of Non-Riemannian Spaces».
10. *W. Barthel* (Freiburg i. Br., Germany): «Über Minkowskische und Finslersche Geometrie».
11. *J. Haantjes* (Leiden, Holland): «On the Notion of Geometric Object».
12. *E. Kaehler* (Leipzig, Germany): «Osservazioni a proposito della Dinamica».
13. *W. Fenchel* (Copenhagen, Denmark): «On Curvature and Levi-Civita's Parallelism in Riemannian Manifolds».
14. *G. Reeb* (Grenoble, France): «Sur certains problèmes de topologie relatifs aux systèmes dynamiques».
15. *M. Pastori* (Milan, Italy): «Sullo spazio della recente teoria unitaria di Einstein».

#### *Venice, September 23.*

16. *H. Rund* (South Africa): «On the Geometry of Generalized Metric Spaces».
17. *R. Sauer* (Munich, Germany): «Flächenklassen bei denen sämtliche infinitesimalen Verbiegungen durch Quadraturen darstellbar sind».
18. *W. Wunderlich* (Vienna, Austria): «Nuovi modelli delle superficie a curvatura costante negativa».
19. *T. H. Willmore* (Liverpool, Great Britain): «Some Properties of Harmonic Riemannian Manifolds».
20. *B. Segre* (Rome, Italy): «Questioni di realtà sulle forme armoniche ternarie hessiane».

*Bologna, September 24.*

21. *L. Godeaux* (Bruxelles, Belgium): «Quadriques et coniques de Moutard».
22. *E. Cech* (Prague, Czechoslovakia): «Deformazione proiettiva di strati di ipersuperficie».
23. *A. D. Alexandrov* (Leningrad, Russia): «Synthetic Methods in the Theory of Surfaces».
24. *Ch. Ehresmann* (Strasbourg, France): «Sur les connections infinitésimales d'ordre supérieur».
25. *B. Eckmann* (Zürich, Switzerland): «Sur les variétés complexes».

*Bologna, September 25.*

26. *W. Klingenberg* (Hamburg, Germany): «Sui sistemi di sfere».
27. *N. H. Kuiper* (Wageningen, The Netherlands): «On Locally Projective Spaces».
28. *R. Debever* (Bruxelles, Belgium): «Une structure infinitésimale régulière associée aux intégraux d'hypersurfaces du calcul des variations».
29. *G. Guggenheimer* (Lausanne, Switzerland): «Topologia differenziale delle trasformazioni cremoniane e delle riemanniane delle funzioni complesse di più variabili».
30. *K. Yano* (Tokyo, Japan): «Groups of Motions and Groups of Affine Collineations».
31. *P. Libermann* (Paris, France): «Sur la courbure et la torsion de certaines structures infinitésimales».
32. *P. Dedecker* (Bruxelles, Belgium): «Systèmes différentiels extérieurs, invariants intégraux et suites spectrales».
33. *F. Sbrana* (Genova, Italy): «Su alcune proprietà delle curve sghembe».

*Pisa, September 26.*

34. *A. Signorini* (Rome, Italy): «Sulla cinematica dei moti rigidi con un punto fisso».
35. *M. Picone* (Rome, Italy): «Sulle condizioni necessarie per un estremo».
36. *G. Bouligand* (Paris, France): «Sur une classe d'équations aux dérivées partielles du premier ordre».
37. *R. Inzinger* (Vienna, Austria): «Differentialgeometrie der Faltungsgruppe im Hilbertschen Raum».
38. *P. Vincensini* (Marseille, France): «Sur une extension d'un problème de L. Bianchi».
39. *S. P. Finikov* (Moscow, Russia): «Systèmes de congruences W».
40. *K. Strubecker* (Karlsruhe, Germany): «Alcune applicazioni della geometria differenziale dello spazio isotropo».
41. *G. Sansone* (Florence, Italy): «Sul problema dell'applicabilità delle superficie isoterme».

This Symposium was attended by the following mathematicians: A. D. Alexandrov (Russia), U. Amaldi (Italy), E. Avanzi (Italy), M. Baldassarri (Italy), M. Barner (Germany), W. Barthel (Germany), B. Bertotti (Italy), W. Blaschke (Germany), G. Bol (Germany), E. Bompiani (Italy), G. Bouligand (France), L. Brusotti (Italy), W. Burau (Germany), P. Buzano (Italy), L. Campedelli (Italy), L. Castoldi (Italy), C. Cattaneo (Italy), E. Cech (Czechoslovakia), F. Cecioni (Italy), S. Cherubino (Italy), G. Cimmino (Italy), V. Dalla Volta (Italy), E. T. Davies (Great Britain), R. Debever (Belgium), P. Dedecker (Belgium), D. Derry (Canada), B. Eckmann (Switzerland), Ch. Ehresmann (France), S. Faedo (Italy), F. Fava (Italy), W. Fenchel (Denmark), S. P. Finikov (Russia), P. Finsler (Switzerland), A. Finzi (Israel), B. Finzi (Italy), A. Franchetta (Italy), L. Fourès (France), V. E. Galafassi (Italy), D. Gallarati



(Italy), L. Godeaux (Belgium), D. Graffi (Italy), F. Graffi (Italy), G. Grioli (Italy), H. Guggenheimer (Switzerland), J. Haantjes (Netherlands), W. V. D. Hodge (Great Britain), H. Hopf (Switzerland), R. Inzinger (Austria), E. Kähler (Germany), A. Kawaguchi (Japan), W. Klingenberg (Germany), N. H. Kuiper (Netherlands), P. Lelong (France), A. Lichnerowicz (France), P. Libermann (France), C. Longo (Italy), E. R. Lorch (U.S.A.), C. F. Manara (Italy), A. Maroni (Italy), E. Martinelli (Italy), G. Masotti Biggiogero (Italy), U. Morin (Italy), L. Muracchini (Italy), M. Pastori (Italy), E. Picasso (Italy), M. Picone (Italy), A. Pratelli (Italy), A. Predonzan (Italy), G. Reeb (France), G. Ricci (Italy), H. Rund (South Africa), G. Sansone (Italy), R. Sauer (Germany), F. Sbrana (Italy), J. A. Schouten (Netherlands), G. Scorza Drageni (Italy), B. Segre (Italy), F. Severi (Italy), A. Signorini (Italy), A. Speiser (Switzerland), E. Storch (Italy), K. Strubecker (Germany), W. Süß (Germany), G. Tanturri (Italy), A. Terracini (Italy), E. Togliatti (Italy), A. Tonolo (Italy), P. Udeschini (Italy), G. Vaona (Italy), P. Vincensini (France), M. Villa (Italy), A. G. Walker (Great Britain), T. J. Willmore (Great Britain), W. Wunderlich (Austria), K. Yano (Japan), G. Zappa (Italy).

Only 13 mathematicians (from Belgium, France, Germany, Great Britain, Japan, Netherlands) were assisted by UNESCO subvention (\$ 1.000). Other subventions to foreign guests were generously supplied by the Italian National Research Council, the «G. Cini Foundation», the Universities mentioned above. A volume containing the contributed papers will appear in June 1954 (Edizioni Cremonese, Roma).

b) The second, a Symposium on Group Representations and Operator Theory, was held in the United States at Arden House (Columbia University), Harriman, New York, October 20-23, 1953. It was jointly sponsored by the National Research Council of the U.S.A. and I.M.U. The following subjects were examined:

1. *Subnormal Operators* (Reporter - Wermer).
2. *Group Representations* (Reporter - Singer).
3. *Operator Algebras* (Reporter - Kadison).
4. *Spectral Variation* (Reporter - Heinz).

The following papers were contributed:

*October 20*

1. *P. R. Halmos* (U.S.A.): «Subnormal operators».
2. *Wermer* (U.S.A.): «Restrictions of operators».

*October 21*

3. *G. W. Mackey* (U.S.A.): «The present status of the theory of group representations».
4. *Harish - Chandra* (U.S.A.): «Representations of Lie groups».
5. *F. Mautner* (U.S.A.): «Ergodic double cosets».
6. *R. Arens* (U.S.A.): «Group algebras of ordered groups».
7. *H. Helson* (U.S.A.): «Bounded groups in algebras of measures».

*October 22*

8. *R. V. Kadison* (U.S.A.): «The full linear group of a factor».
9. *I. M. Singer* (U.S.A.): «The automorphism group of a factor».
10. *H. A. Dye* (U.S.A.): «Unitary groups in a factor».
11. *I. E. Segal* (U.S.A.): «Non commutative integration».
12. *I. Kaplansky* (U.S.A.): «Modules over operator algebras».
13. *L. Loomis* (U.S.A.): «Lattices and rings of operators».

October 23

14. E. Heinz (Germany): «Inequalities for operators».
15. F. Rellich (Germany): «Linearly perturbed operators».

The Organizing Committee consisted of I. Kaplansky (Chairman), G. W. Mackey and M. H. Stone.

This Symposium was attended by the following 20 mathematicians: R. Arens (USA), H. A. Dye (USA), P. R. Halmos (USA), Harish-Chandra (USA), E. Heinz (Germany), H. Helson (USA), R. V. Kadison (USA), S. Kakutani (USA), I. Kaplansky (USA), J. L. Kelley (USA), L. Loomis (USA), G. W. Mackey (USA), F. Mautner (USA), R. S. Phillips (USA), F. Rellich (Germany), C. E. Rickart (USA), I. E. Segal (USA), I. M. Singer (USA), M. H. Stone (USA), J. Wermer (USA).

All were assisted by the UNESCO subvention (\$ 1.500) made available through ISCU and IMU. The National Research Council is preparing a detailed account of the proceedings and will make it available in due course.

## 2. Preparation of the Second General Assembly.

The second General Assembly of the I.M.U. will take place at the Hague (The Netherlands) on August 31st and September 1st, 1954. With the cooperation of Professor Koksma and Loonstra two rooms have been reserved for its use at the International Academy (the former Royal Palace).

Invitations to the National Adhering Organizations to send Delegates to the Assembly were dispatched on October 20, 1953. These organizations were reminded that proposals for the agenda of the meeting should reach the Secretariat not later than April 30, 1954.

A copy of the list of Delegates (so far as known at the time) has been sent to the Secretariat of the International Congress of Mathematicians (Koksma); a circular letter dated December 30, 1953 was sent to all National Adhering Organizations to inform them about the arrangements concluded with the Secretariat in order to solve the housing problem. In addition a personal letter of information about these problems has been sent to each Delegate recommending to him early action in the matter of making room reservations.

The following invitations have been extended to the participants in the General Assembly:

- 1) Official reception offered by the Municipality of the Hague in the new Town Hall on Tuesday, August 31st, 1954, at 5 p.m.
- 2) Official reception offered by the Rector (Prof. Dr. O. Bottema) of the Technical University of Delft, at the University on September 1st, 1954, at 5 p. m.

Meetings will take place between 9.30 a. m. and 12 noon and from 2 p. m. to 4.30 p. m.

## 3. International Congress of Mathematicians.

Although the I.M.U. has no direct responsibility for the organization of the Congress at Amsterdam, close cooperation has been given to the Organizing Committee by the Secretariat in disseminating news, answering requests from different agencies, and so on. Direct help provided to the Congress consists in the allocation of UNESCO funds for Symposia to be held in connection with the Congress. The sum allocated for this purpose amounts to \$ 4.940 for three Symposia. The subjects of these Symposia are:

1. *Stochastic Processes*. (Organizers: van Dantzig, Feller).
2. *Algebraic Geometry*. (Organizers: Kloosterman, Weil, Zariski).
3. *Mathematical Interpretation of Formal Systems*.

(Organizers: Heyting, Beth).



#### 4. Relations with other Unions and with ICSU - UNESCO.

In response to invitations received the Union sent delegates to the following meetings:

1) *Ninth General Assembly of the International Union of Biological Sciences* (Nice, France, August 17-21, 1953); Delegate: J. P é r è s.

2) *Annual Meeting of the British Association for the Advancement of Science* (Liverpool, Great Britain, September 2-9, 1953); Delegate: Sir H. J e f f r e y s.

3) *The General Assembly of the International Union on the History of Science* (Jerusalem, Israel, August, 2-12, 1953); Delegates: G. S a r t o n, R. T a t t o n.

An invitation has been received to send a Delegate to the *General Assembly of the International Union of Pure and Applied Physics* (London, July 7-10, 1954).

The *fifth meeting of the Executive Board of ICSU* (in Strasbourg, August 1954) was attended by Professors H o d g e, J e s s e n, and K a m k e. Questions concerning the internal organization of ICSU were discussed. The next General Assembly of ICSU in 1955 has been announced to take place during the fall in Oslo. The Secretary General of ICSU has recently requested the opinion of the Union by June 30th, 1954, on the application for admission to ICSU submitted by the International Union of Scientific Psychology. Similar applications have been received by the ICSU Executive Board every year since 1950. At present 17 psychological societies adhere to the Union. Other relations with ICSU were mainly of financial character; they are indicated in Section E (Financial).

This Union was requested by UNESCO to give its opinion on the «rights of scientists».

The *Association for Symbolic Logic* (U.S.A.) inquired whether it could join the I.M.U. as a supporting organization, and was informed that I.M.U. is an organization of adhering nations, each represented by a National Adhering Organization. The United States is represented by the National Academy of Sciences (National Research Council) of the United States of America. The U.S. National Committee for Mathematics is appointed by the National Adhering Organization on the recommendation of the Division of Mathematics, National Research Council (of which it is a standing committee) and the Policy Committee for Mathematics representing the United States, including the Association for Symbolic Logic. It was therefore pointed out that the Association already participates to this extent in the work of I.M.U.

### D — SECOND EXECUTIVE COMMITTEE MEETING.

#### 1. Time and place.

The second meeting of the Executive Committee was held in Paris, March 31 - April 1, 1954, at the Institut Poincaré in rooms put at the disposal of the Committee through the courtesy of the University of Paris. Present at the meeting were: President S t o n e, Second Vice-President K a m k e, Secretary B o m p i a n i, Member J e s s e n. Professors B o r e l, H o d g e, I y a n a g a regretted their absence; Professor D e n j o y was present as Observer (without vote) for Professor Borel.

The following actions were taken by those present, and were later approved by mail by the members not in attendance at the meeting.

#### 2. Elections and Nominations of Commissions in 1954.

The Committee voted to present the following recommendations to the General Assembly at the Hague.



a) *Elections in 1954.*

The Executive Committee recommends that the General Assembly conduct its elections in 1954 in a manner similar to that which was followed with success at the First General Assembly in Rome in 1952. The Committee therefore proposes the adoption of the following resolutions:

*Resolved:* that nominations for the period 1955 - 1958, for:

- 1) the Officers of the Union.
- 2) the additional Members of the Executive Committee.
- 3) the representatives of IMU to ICSU.

be prepared and submitted for action to this Assembly by a Nominating Committee, consisting of the President ex-officio and four additional members elected by this Assembly on nomination of the Executive Committee. Proposals for the list of nominations to be submitted by the Nominating Committee may be made by any member of the General Assembly. No name which has not been so proposed may later be put in nomination for the posts to be filled at these elections.

b) *Nomination of Commissions.*

*Resolved:* that nominations for the Members of the various Commissions of IMU and for the Chairmann of the respective Commissions be submitted by the President for action by the General Assembly.

### 3. *Symposia.*

In recent years the organization of conferences (colloquia, symposia) on special fields has become an increasingly important means of promoting international cooperation in science. The International Mathematical Union from funds made available by UNESCO through ICSU, has supported such conferences in 1953 and 1954.

In order to place the continued activity of the Union in this domain on firmer ground, the Executive Committee voted to recommend the adoption by the General Assembly at the Hague of the following general rules.

1. A conference is thought of as a closed meeting of experts and promising younger scientists in a currently active field.
2. The Executive Committee of the Union may take the initiative in the organization of a conference; but in general the Union will act as co-sponsor for conferences suggested by the National Adhering Organizations or by interested groups of mathematicians. The Executive Committee makes the decision as to what conferences should be organized or supported by the Union and seeks to obtain the necessary funds. It shall aim at the support of at least one conference each year. From time to time the Union may participate in the organization of joint symposia with other Unions.
3. Organizations or groups of mathematicians who desire the participation of the Union in the organization of a conference, should send their proposals to the Secretary of the Union. The proposal must state subject, place and the intended date of the conference, and a preliminary budget indicating the support that may be expected from other sources and the support from the Union that will be needed for the successful organization of the conference. The support from the Union must be used exclusively for travelling and maintenance expenses of invited guests.
4. The Executive Committee shall discuss the future program of conferences each year on the basis of proposals received before February 1 (in 1954 before November 1). In setting up the program the Executive Committee must take into account the interest of the various subjects from the point of view of the actual state of science, the scientific circumstances in the countries in which the conference might take place, and what conferences



have taken place in recent years. The Executive Committee shall aim at a rotation of aid among the principal geographical areas of mathematical activity, and among the various branches of mathematics. The Executive Committee shall aim at a generous support of the conferences of which the Union acts as co-sponsor.

5. When the Executive Committee takes the initiative for a conference it appoints an organizing committee for the conference including at least one of its own members.

6. When the Union acts as a co-sponsor of a conference proposed by a National Adhering Organization or a local group, the Executive Committee shall appoint one of its members and one or two other mathematicians to join the national or local Organizing Committee for the conference. These members shall participate in the scientific arrangements, and in particular in the selection of the invited participants for the meeting.

7. Information about conferences to be organized or supported by the Union shall be sent to the National Committees for Mathematics which may call the attention of the organizing committees to experts whose participation is considered desirable.

#### 4. Agenda for the Second General Assembly.

The following agenda has been adopted for the Second General Assembly:

1. Action on seating of Delegates.
2. Action on question concerning membership.
3. Appointment by the President of Working Committees.
4. Resolution to form Nominating Committee - Implementation of same (see D, 2, a).
5. Reception of Reports.
6. Action on News Bulletin.
7. Budget for 1955-1958 - Discussion of contributing membership.
8. Proposals regarding Symposia (see D, 3).
9. Work of the Executive Committee and Commissions - Addition and elimination of Commissions.
10. Discussions of relations with ICSU and other Unions.
11. Topics suggested by the National Adhering Organizations.
12. Elections.
13. Resolutions approving Reports.
14. Resolution on Congress - Next meeting of General Assembly.
15. Courtesy resolutions.

#### 5. Financial Decisions.

A complete statement of the financial situation of the I.M.U. is given in E. The following decisions have been taken by the Executive Committee for the breakdown of UNESCO funds allotted for 1954:

C. 2	<i>Publications.</i> (\$ 1.190).	
	International News Bulletin . . . . .	\$ 600
	World Directory of Mathematicians . . . . .	\$ 590
		<hr/> \$ 1.190
C. 3	<i>Meetings of Committees.</i> (\$ 3.960).	
	International Commission for Mathematical Instruction	\$ 1,000
	Executive Committee and other Commissions . . . . .	\$ 2,960
		<hr/> \$ 3.960
C. 4	<i>Symposia.</i> (\$ 5.940)	
	Three Symposia in Amsterdam . . . . .	\$ 5.940

To the World Directory there will also be contributed in 1954 from I.M.U. funds \$ 410 to meet the contractual obligations to Butterworths.

The unexpended balances of the 1953 appropriations for ICMI and for the Commission on the International Exchange of Mathematicians will remain available to the respective Commissions, if the necessary transfer of funds is approved by ICSU.

The possibility of increasing the appropriations to be made in the future from IMU funds for secretarial assistance and office expenses was considered by the Committee.

## 6. Other Decisions.

The Executive Committee voted:

- 1) To invite UNESCO and ICSU to send Observers to the General Assembly.
- 2) To invite, in advance of the Second General Assembly, the adherence of nations not presently members of IMU.
- 3) To accept invitations extended to participants to the General Assembly to attend receptions offered by various authorities in the Hague and Delft.
- 4) To answer the proposal of the International Union for Logic, Methodology and Philosophy of the Science (IUPS) after having consulted ICSU upon the possibility of creating a section in ICSU concerned with problems of humanistic character.
- 5) To answer ICSU's request about the admission of the International Union of Scientific Psychology to ICSU, stating that while this Union favors adequate representation for psychology in ICSU it is not in a position to indicate the best solution to the problem posed by this request.

## E — FINANCIAL.

### 1. Introductory Remarks.

As during the preceding year the I.M.U. has three different bank accounts at the following banks:

- 1) Chase National Bank of the City of New York.
- 2) Banca Nazionale del Lavoro, in Rome.
- 3) Société Générale, in Paris.

The reasons for having three different bank accounts were given in the preceding report and may be summarized as follows:

- 1) convenience for each country to pay dues in the currency it prefers;
  - 2) avoidance of transfers (and transfer restrictions) from one country to another;
  - 3) avoidance of losses in the exchange from one currency to another.
- This policy is almost imposed upon the Unions by UNESCO because part of its payments to the Unions *must* be made in «soft» currencies. So far, all exchanges of currency and the attendant losses, have been avoided by asking UNESCO to make payments in the needed soft currencies (for Commissions or for Symposia) and by the happy distribution of dues paid in different currencies.

Auditors were appointed (July 22, 1953) by the President in the persons of Professor B. de Finetti (Trieste), B. F. Gill (New York), R. Salem (Cambridge, Mass.).

As the financial year of UNESCO ends October 15, the first financial report since the inception of the Union was submitted to the auditors with a letter dated November 7, 1953. Professor de Finetti checked all the bills and receipts during a visit to Rome and sent his approval on



November 13, 1953. Professor Salem also expressed his approval (November 21, December 8, 1953). The audited financial report was sent to the Administrative Secretary of ICSU; so far no objection has been raised by UNESCO.

Transfer of unexpended 1953 grants from ICSU to the Union have been requested. In connection with the financial responsibility of this Union to ICSU it has recently been made clear by the Treasurer of ICSU that we (the Union) «cannot consider a sum actually spent when it is transferred to the Chairman or Treasurer of a certain Commission. You are still accountable for the expenditure to ICSU, and through ICSU to UNESCO. Consequently the various Commissions should send their financial reports to you (the Secretariat) for incorporation in your audited statement each year. Finally, it is obligatory on every Union to make a financial report on the money given by UNESCO through ICSU, and it is preferable to have a report on the expenditure of IMU's own money, since it is sometimes possible to make a final adjustment of any unspent balance of the total UNESCO grant in favour of a Union which has overspent its own particular UNESCO subvention in one or more categories». This letter is quoted here at length because it should be known to all Commissions or other agencies receiving UNESCO money from IMU.

## 2. Income.

The two income sources are: A) dues paid by member nations; B) UNESCO contributions.

A) Some clarifying remarks are in order here. The payments made by Belgium and France, which in the previous report were entered under the years 1952 and 1953, were intended to cover the years 1951 and 1952. The dues for 1953 have also been received.

Italy paid its 1953 dues in 1952 (Dec. 27, 1952). Yugoslavia's dues paid at the close of 1952 (and received on January 1953) were intended (as it appeared later from conversations in Paris with Professors Châtelet and Kurepa) for 1953. Yugoslavia's dues for 1952 were received in 1953. Spain and Sweden paid in 1953 their contributions for 1952. Receipt of Sweden's contribution for 1953 has recently been acknowledged (March 12, 1954, by the Banca Nazionale del Lavoro). Pakistan paid its dues for 1953 in 1954 (Jan. 11). Taking these late payments into account the only outstanding dues for 1953 are those of Peru and Spain. Also outstanding are Peru's dues for 1952.

Contributions received from member nations in 1953 are as follows:

<i>Chase National Bank</i>	
Norway (January 26)	\$ 65,20
Cuba (February 5)	» 65,20
Canada (March 12)	» 130,40
Switzerland (March 23)	» 130,40
Austria (March 24, April 22)	» 65,20
Germany (April 24)	» 326,00
Yugoslavia (June 15; for 1952)	» 131,00
Japan (July 9)	» 326,00
Mexico (September 11)	» 65,20
Argentina (September 29)	» 65,20
Australia (December 3)	» 65,20
Malaya - Singapore (December 3)	» 65,20
USA (December 23)	» 521,60
	<hr/>
	\$ 2.021,80

*Banca Nazionale del Lavoro*

Yugoslavia (January 5)	It. Lire	81.322
Netherlands (March 24)	»	80.748
Spain (March 26; for 1952)	»	82.000
Belgium (May 26)	»	121.563
Sweden (June 3; for 1952)	»	40.446
Great Britain (June 3)	»	322.277
Denmark (June 5)	»	80.811
Finland (June 6)	»	40.386
Greece (July 18)	»	40.885
France (July 22)	»	202.147
Israel (July 22; first allotment)	»	40.713
India (October 17)	»	121.148
	<u>It. Lire</u>	<u>1.254.446</u>

B) UNESCO contributions through ICSU for 1953 in the various categories are as follows:

C. 2 News Bulletin - Directory of Mathematicians	\$	1.500
C. 3 Executive Committee - Commissions	»	3.500
C. 4 Symposia	»	2.500
	<u>\$</u>	<u>7.500</u>

In accordance with UNESCO rules part of this grant was to be paid in «soft» currency; actually the following payments have been made by UNESCO to IMU:

Chase National Bank	\$	5.000
Banca Naz. del Lavoro (equivalent of \$ 1.000) (for the Symposium of Differential Geometry)	It. Lire	620.017
Société Générale (equivalent of \$ 1.500) (for the ICMI)	Fr.Frcs.	525.000

Assuming the rate of exchange \$ 1 = It. Lire 624 the following is an approximation of the total income received in 1953:

A - Membership dues	\$	4.032,13
(\$ 2.021,80+2.010,33)		
B - UNESCO contributions	»	7.500,00
Total.	<u>\$</u>	<u>11.532,13</u>

### 3. Expenditures.

A) The expenditures authorized by the first General Assembly for 1953, against IMU funds are as follows:

a) Secretarial help	\$	1.500
b) Office expenses	»	500
c) Travelling Expenses of the Executive Committee	»	750

The following expenses in the categories a) b) have been actually met:

a) Secretarial help for 1953, It. Lire 935.000 approximately equivalent to	\$	1.500
b) Mail and other office expenses (It. Lire 301.570; subscription to «Europa», October 1952 - September 1953 \$ 16,80) approximately equivalent	\$	500

Actual expenses in category c) against IMU funds were broken down as follows:

- 1) Executive Committee Meeting in Paris (February



13 - 14, 1953), Fr. Frcs. 81.180 approximately equivalent to	\$	286
2) Delegates to ICSU Board Meeting in Strasbourg (July 9-10, 1953)	\$	55
3) Advance on Prof. Stone's travel expenses for the Executive Committee Meeting in 1954	\$	385
		<u>726</u>

As nothing was spent by the Executive Committee for travel in 1952, the unexpended balance for the years 1952 and 1953 from IMU funds allotted to travel expenses amounts to \$ 774.

The actual expenses for the Executive Committee Meeting in Paris (February 13 - 14, 1953) were:

Against IMU funds, Fr. Frcs. 81.180	\$	286
Against UNESCO grant (C 3)	\$	1.000

It is to be noted here that the first General Assembly made no provision (probably ignoring it) for the payment to ICSU of 1 % of the actually paid IMU dues in a given financial year. The Executive Committee interpreted minute (7) of the Record of that Assembly («It was agreed that the Union should apply for membership in ICSU») as implying the necessary consequences of the application to ICSU; therefore the sum of \$ 41,07 was paid (Dec. 29, 1953) to the Treasurer of ICSU against IMU funds.

At the beginning of the operation of the Secretariat of the IMU (Rome, March, 1952) no funds were available before dues were collected. The operation was made possible by using the remainder (It. Lire 251.452) of a sum supplied by the Italian National Research Council to the Unione Matematica Italiana for the preparation of the First General Assembly. Owing to the improved financial situation of IMU it was possible to reimburse that sum; the payment was made on December 4, 1953.

B) The expenditures in 1953 against UNESCO contributions have been as follows:

C. 2	To Butterworths for the preparation of the World Directory	\$	1.000
	To the Oesterreichische Mathematische Gesellschaft	\$	500
	Total	\$	<u>1.500</u>
C. 3	Meeting of the Executive Committee in Paris (February 13-14, 1953)	\$	1.000
	Meeting of the Advisory Committee for the World Directory of Mathematicians in London (November 24, 1953)	\$	500
	To the International Commission for Mathematical Instruction (Fr. Frcs. 525.000 approximately equivalent to)	\$	1.500
	Total	\$	<u>3.000</u>
C. 4	Symposium on Differential Geometry	\$	1.000
	Symposium on Topological Groups	\$	1.500
	Total	\$	<u>2.500</u>

The balance of \$ 500 in C. 3 was committed to the Commission on the Exchange of Mathematicians; as it was not actually spent ICSU has been asked to have it transferred to 1954.

The sum of \$ 1.500 indicated in C. 3 as paid to ICMI was not completely spent by that Commission in 1953; hence UNESCO has been asked, through ICSU, to transfer the remainder of that sum to 1954.

#### 4. Balance Sheet.

The balance of the three IMU bank accounts as of January 1, 1954 were:

1) Chase National Bank . . . . .	\$	4,160,09
2) Banca Nazionale del Lavoro . . . . .	It. Lire	350,401
3) Société Générale . . . . .	Fr.Frcs.	240,390

The total assets and liabilities at the same date are the following:

	It. Lire	\$	Fr. Frcs
Bank Balances			
Cash	350,401	4,160,09	240,930
	20,960		
<i>Miscellaneous Assets:</i>			
Peru (dues 1952)		65,20	
Spain, Sweden, Peru, Pakistan (dues 1953)		456,40	
Israel (second allotment of dues 1953)		65,20	
Advance on Prof. Stone's travel expenses (Paris meeting 1954)			385,00
	<u>Total</u>	<u>371,361</u>	

#### *Liabilities:*

Salaries for 1953 unpaid in 1953		87,000	
		<u>284,361</u>	<u>5,131,89</u>
			240,930

All the financial statements have been checked by Prof. De Finetti.

(At the time of the delivery of this report Israel, Pakistan and Sweden have paid their dues for 1953 in full).

#### 5. Financial Grants and Requests to UNESCO for 1954, 55, 56.

The allocations voted by the Executive Board of ICSU, July 1953, and approved by the Executive Board of UNESCO, December 1953, concerning UNESCO subvention to IMU in 1954 are as follows:

C. 2 Two publications . . . . .	\$	1,190
C. 3 Meeting of Committees (General Assembly) . . . . .	\$	3,960
C. 4 Three Symposia . . . . .	\$	5,940
	<u>\$</u>	<u>11,090</u>

We have already been notified (March 1, 1954) that ICSU has made arrangements for payment of \$ 7,900 to the account of IMU with the Chase National Bank, whereas the equivalent of \$ 3,190 will be paid in Dutch Guilders (soft currency) in Holland where this sum will be needed for the Symposia. Conditions attached by UNESCO to 1954 grants have already been communicated to the prospective recipients of such grants. As already stated in B-1, the Committee was authorized by mail ballot of the National Adhering Organizations to draw on Union funds in an amount up to \$ 500 in order to discharge obligations to Butterworths during 1954; and \$ 410 was actually appropriated for this purpose.

The following requests have been forwarded by the Executive Committee to ICSU for the years 1955 and 1956:

#### 1955

<i>C. 2 Publications:</i>		
Directory of Mathematicians . . . . .	\$	1,500
News Bulletin . . . . .	\$	1,000
Proceedings of the International Congress of Mathematicians 1954 . . . . .	\$	5,000
C. 3 Executive Committee and Commissions . . . . .	\$	4,000
C. 4 Symposia (two or three) . . . . .	\$	5,000
	<u>\$</u>	<u>16,500</u>



1956

C. 2 Publications:		
Directory of Mathematicians . . . . .	\$	1,000
News Bulletin . . . . .	\$	1,000
C. 3 Executive Committee and Commissions . . . . .	\$	5,000
C. 4 Symposia (two or three) . . . . .	\$	5,000
	\$	12,000

APPENDIX TO THE REPORT

The preceding (annual) Report is also the Report to the meeting of the General Assembly.

Only a few additional events, which took place between April 1st and May 31, 1954 are to be mentioned here:

1. UNESCO and ICSU have been invited (May 17, 1954) to send representatives to the General Assembly.
2. The Secretary General of ICSU, Dr. A. V. Hill, has informed us (May 10, 1954) that, on the assumption that a subvention of \$ 180,000 to ICSU will be voted at the Eighth General Conference UNESCO at Montevideo in November 1954, the ICSU Bureau has made a preliminary breakdown for 1955. The IMU part is indicated here:

C. 2 Publications:	Requested	Proposed
Directory of Mathematicians . . . . .	1,500	Nil
News Bulletin . . . . .	1,000	Nil
Proceedings International Congress of Mathematicians 1954 . . . . .	5,000	4,000
C. 3 Meetings of Committees . . . . .	4,000	4,000
C. 4 Symposia . . . . .	5,000	3,000

Directories and News Bulletins are not encouraged by the ICSU Executive Board.

3. The Administrative Secretary of ICSU, Dr. R. Fraser, has informed us that the following transfers from 1953 to 1954 for the indicated purposes have been approved by the Executive Board of UNESCO:

(1) Travel and subsistence expenses of members of the Commission on the Exchange of Matematicians of the IMU, for a meeting of the Commission postponed from 1953 to 1954 (\$ 500).

(2) Travel and subsistence expenses of members of the Commission for Mathematical Instruction of the IMU for meetings of the Commission in 1954 (\$ 1,300 = Fr. Frcs. 452,000).

4. The next meeting of the ICSU Executive Board will take place in Naples, October 5-7, 1954.

5. Please take note of the following change which has just been communicated:

*The meeting of the General Assembly will take place in the «Rolzaal», Binnenhof 8, The Hague, Holland.*

All correspondence concerning personal problems in connection with these meetings should be addressed to

Prof. F. Loonstra, Haviklaan 25, The Hague, Holland.

Rome, June 1954.

The Secretary of IMU  
Signed: *Enrico Bompiani*

The President of IMU  
Signed: *Marshall H. Stone*

**LIST OF DELEGATES**  
**To the Second General Assembly of the IMU**  
(up to March 31st)

**AUSTRALIA**

Dr. F. A. Behrend; University of Melbourne, Victoria.

**BELGIUM**

Prof. L. Godeaux; 37, Quai Orban, Liège.  
Prof. F. Bureau; 17, Rue de Harlez, Liège.  
Prof. F. Simonart; 35, Bd. Léon Schreurs, Louvain.

**CANADA**

Prof. G. de B. Robinson; University of Toronto.  
Prof. R. L. Jeffery; Queen's University, Kingston.  
*Alternates:*  
Prof. H. S. M. Coxeter; University of Toronto.  
Prof. J. G. Adshead; Dalhousie University, Halifax.

**DENMARK**

Prof. N. E. Nörlund; Malmögade 6, Copenhagen.  
Prof. W. Fenchel; Sønderengen 110, Söborg.

**FINLAND**

Prof. P. J. Myrberg; University of Helsinki  
Prof. R. H. Nevanlinna; University of Helsinki.

**FRANCE**

Prof. P. Montel; 79, Rue du Faubourg St. Jaques, Paris XIV.  
Prof. A. Denjoy; 116, Bd. Raspail, Paris VI.  
Prof. J. Pérès; 95, Bd. St. Michel, Paris V.  
Prof. J. Leray; 12, Rue Pierre Curie, Sceaux (Seine).  
*Alternates:*  
Prof. A. Châtelet; 120, Rue d'Assas, Paris VI.  
Prof. M. Brelot; 11, Rue Pierre Curie, Paris V.  
Prof. C. Ehresmann; Université de Strasbourg.  
Prof. C. Pisot; 86, Rue Lagrange, Bordeaux.

**GERMANY**

Prof. E. Kamke; Universität Tübingen.  
Prof. H. Kneser; Universität Tübingen.  
Prof. H. L. Schmid; Universität Würzburg.  
Prof. K. Strubecker; Technische Hochschule Karlsruhe.

**GREAT BRITAIN**

Prof. W. V. D. Hodge; 28 Barrow Road, Cambridge.  
Prof. M. H. Newman; The University, Manchester 13.  
Prof. G. Temple; Mathematical Institute, Oxford.  
Prof. H. Davenport; University College, Gower Street, London, W.C. 1.  
Dr. Mary R. Cartwright; Girton College, Cambridge.

**INDIA**

Prof. K. Chandrasekharan; Tata Institute, Apollo Pier Road,  
Bombay.



## ISRAEL

Prof. B. Amira; Hebrew University, Jerusalem.  
Prof. A. Fraenkel; Hebrew University, Jerusalem.

### *Alternates:*

Dr. S. Agmon; Hebrew University, Jerusalem.  
Prof. M. Fekete; Hebrew University, Jerusalem.

## ITALY

Prof. F. Severi; Istituto di Alta Matematica, Città Universitaria, Roma.  
Prof. A. Signorini; Istituto Matematico, Città Universitaria, Roma.  
Prof. A. Terracini; Corso Francia 19bis, Torino.  
Prof. G. Sansone; Via Francesco Crispi 6, Firenze.

### *Alternate:*

Prof. E. Bompiani; Via Verona 22, Roma.

## JAPAN

Dr. S. Iyanaga; Tokyo University, Tokyo.  
Dr. K. Shoda; Osaka University, Osaka

## MALAYA-SINGAPORE

Prof. A. Oppenheim; University of Malaya, Cluny Road, Singapore 10.

## NORWAY

Prof. Th. A. Skolem; Universitetet, Blindern-Oslo.

## PAKISTAN

Prof. M. R. Siddiqi; University of Peshawar.

## SPAIN

Prof. J. R. Pastor; University of Madrid.  
Prof. T. R. Bachiller; Colle del Tormes 2, Colonia del Viso, Madrid.  
Prof. R. San Juan Llosà.  
Prof. S. R. Garcia.  
Prof. P. A. Cebollero.

## SWITZERLAND

Prof. J. J. Burckhardt; Universität Zürich.  
Prof. E. Stiefel; Eidgen Technische Hochschule Zürich.

## UNITED STATES

Prof. E. Hille; Yale University, New Haven 11 (Conn.)  
Prof. S. MacLane; Eckhart Hall, University of Chicago, Chicago 37  
Prof. E. J. McShane; University of Virginia, Charlottesville (Va.).  
Prof. M. Morse (Chairman); Institute for Advanced Study, Princeton  
Prof. M. H. Stone; Eckhart Hall, University of Chicago, Chicago 37.  
*Alternate:*  
Prof. A. A. Albert; Eckhart Hall, University of Chicago, Chicago 37

## CEYLON AND ITALY RATIFY COMPUTATION CENTRE CONVENTION

UNESCO has received from the Governments of Ceylon and Italy the instruments of unconditional acceptance of the Convention for the Establishment of the International Computation Centre. This brings to four the number of States which have now adhered to the Convention, the others being Japan and Belgium. Seven other States have signed but not yet ratified — Egypt, Iraq, Israel, Liberia, Mexico, the Netherlands, Turkey.

The Convention, which will enter into force when ten States have ratified, was adopted by a conference of governmental representatives held at UNESCO House, Paris, in November and December 1951.

The International Computation Centre, which is to be established in Rome, will have three functions: scientific research, education, consultative and computation service. It will have a laboratory including various types of calculating machines in order to conduct scientific research in the use and improvement of mechanical devices for computation.

*UNESCO Newsletter 32/1954).*

## RAPPORTS—BERICHTE—REPORTS

### Sixth British Mathematical Colloquium

Cambridge, April 6-8, 1954

The sixth British Mathematical Colloquium was held at Cambridge during April 6-8. Among the 170 members were Prof. A. Zygmund, at present working in Cambridge, and Prof. L. Schwartz, of Paris, who attended as foreign guest of honour.

The first day was devoted to algebra, and the following papers were read: Dr. D. Rees, an aspect of multiplicative ideal theory; Dr. W. Ledermann, some recent work on group characters; Mrs. H. Neumann, Hopf's problem; Dr. C. H. Dowker, dimension of metric spaces. The day devoted to analysis included papers by Prof. Zygmund on Hilbert's transform and its generalizations, Mrs. D. Stone on measure algebras, Dr. H. G. Eggleston on extremal geometric problems, and Prof. Schwartz on distributions and applications to partial differential equations of hyperbolic type. The geometry (third day) discussed was chiefly algebraic: Prof. J. G. Semple, on enumerative geometry and the method of degenerate collineations; Dr. D. B. Scott, on self-correspondences on algebraic varieties; Prof. D. G. Northcott, on some local and global aspects of the foundations of geometry. The "splinter groups" worked with enthusiasm during the intervals available from the main programme, and exchanged much information on problems now being actively investigated. On the afternoon of April 7, a visit was paid to the University Mathematical Laboratory.

It is hoped to hold a seventh colloquium in 1955, at the University College of the South-West, Exeter.

*R. A. Rankin (Birmingham)*

### Jahrestagung der Gesellschaft für angewandte Mathematik und Mechanik.

München, 20.-24. April 1954.

Vom 20.-24. April d. J. fand in München die Jahrestagung der Gesellschaft für angewandte Mathematik und Mechanik statt. Die Sitzungen der Tagung, zu der sich rund 300 Teilnehmer angemeldet hatten, wurden in den Hörsälen des Mathematischen und des Physikalischen Institutes der Technischen Hochschule abgehalten. Im allgemeinen wurde in drei Sektionen getagt: Angewandte Mathematik, Mechanik und Strömungslehre. Außerdem versammelten sich an einem Nachmittage auch Gruppen, die Statistik sowie Rechenmaschinen und mit ihnen zusammenhängende Fragen besprachen.

In den Allgemeinsitzungen wurden nach Eröffnung durch den Vorsitzenden A. Walther (Darmstadt) größere einstündige Referate gehalten, und zwar von L. Föppel (München) „Spannungsoptik als Hilfsmittel der Grund-