

THIRD GENERAL ASSEMBLY OF IMU  
St. Andrews (Scotland), August 11-13, 1958

Present: H. Hopf, President  
A. Denjoy, First Vice President  
S. MacLane, Second Vice President  
K. Chandrasekharan, Member  
W.V.D. Hodge, Member  
J.F. Koksma, Member  
B. Eckmann, Secretary General

61 delegates, representing 28 (out of 36) member countries.

-- 1st Session, Monday afternoon at 2 --

1. OPENING OF THE ASSEMBLY

The President opens the meeting by welcoming the delegates to the Third General Assembly of the International Mathematical Union.

Professor Copson (GB) answers that Great Britain is very greatly honored by this visit and will do anything to make the delegates stay happy. He then invites all delegates to a dinner offered by the Principal of the University of St. Andrews on behalf of the Mathematics Department.

The President expresses his pleasure to have the meeting in such a nice place.

Prof. Eckmann explains about the list of delegates to be circulated and asks them to sign it. He says that extra copies of our letter to delegates, sent out in July and giving the time table of the meetings, may be obtained at the information desk.

Two small Committees have to be nominated. Drafting Committee for which he suggests Koksma, MacLane and Brelot, and Budget Committee to consist of Montgomery, Köthe and himself. A third Committee for the Revision of IMU Statutes may have to be established later on.

He then asks delegates whether they want the discussions to be translated from English into any other language.

France asks for translations into French and Bogolyubov (USSR) asks for translations into Russian, which will be made by Prof. Alexandrov, USSR.

The President then asks members for permission to interchange point 2 and point 3 of printed Agenda. Accepted.

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2. PREPARATION OF ELECTIONS

The President says that the most important election is the one of the new Executive Committee. In the last General Assembly (The Hague, 1954) nominations for the officers of the Union and the members of the Executive Committee were prepared and submitted to the General Assembly by a Nominating Committee consisting of the President and four members of the Assembly. Proposals may be made by any member of the General Assembly to the Nomination Committee. ~~No~~ *The* names which have ~~been~~ *and only these names,* proposed, will be taken on the list. Deadline for suggestions: Lunchhour of Tuesday, August 12. Eckmann translates this into French, Alexandrov into Russian.

The President then proposes as members of the Nomination Committee: Bompiani, Jessen, Vranceanu, Yosida and himself. Vranceanu is not here, replaced by Turan. He asks these delegates whether they accept their nomination. They do.

Then Eckmann explains about our voting system. He suggests that small items will not be voted on, but just accepted orally. For more important items, voting slips will be distributed. Delegates agree with this procedure.

The President says that the Executive Committee has prepared a list of nominees for the new E.C., under the assumption that the number of members will be increased from 3 to 5. <sup>Copies of</sup> This list shall be distributed to the Nominating Committee and to all delegates.

During the President's speech these lists are distributed.

2  
3. PRESIDENT'S REPORT ON THE ACTIVITIES OF THE UNION

*3. I have now known, de  
machev anspishivlen*

(1) The President first informs the delegates about the admission of new members since the last General Assembly. Seven new countries have been admitted to the Union since 1954, namely: Ireland, Poland, ~~USSR~~, Bulgaria, Czechoslovakia, Hungary and Rumania. The President expresses his hope that this important growth of the Union will facilitate and strengthen the ~~difficult~~ scientific task of the Union.

*achievement of the*

Applause.

(2) He then refers to the second point of his report: the sponsoring of symposia. He says that this has been the most gratifying task of the Union. The most active part in the organization of a symposium is, of course, always the group of mathematicians in the host country. The Union has taken part in the organization of ~~the~~ various symposia and its financial help is of great importance to the respective host countries. The Union takes part in the organization of symposia in that way that the E.C. nominates a few delegates to the Organization Committee, one delegate being a member of the Executive Committee. These delegates of the Union have some influence on the symposia and our cooperation has

been quite helpful for the success of the symposia. The following symposia were held since the last General Assembly:

- Int'l. Congress of Maths. and Sya. held in connection with the Congress: <sup>A'dam,</sup> Sept. 54
- Coll. for young topologists on Algebraic Topology, Oxford (England), June 28 to July 1, 1955
- Coll. on the Algebraic Theory of Numbers, Tokyo (Japan), September 8 - 13, 1955
- Int'l. Coll. on Zeta Functions Bombay (India), February 14-21, 1956
- Conf. on Mathematical Instruction in South Asia, Bombay (India), February 22-28, 1956
- Int'l. Coll. on the Theory of Functions, (Helsinki, (Finland), August 12-18, 1957
- Int'l. Coll. on Finite Groups, Tübingen (Germany), August 18-24, 1957

(1959)

(1958)

There are definite plans for symposia to be held during the next year. This year [there were none because of the Congress, but next year one will be held in Warsaw and one in Utrecht. The President refers to the Report where more details on these symposia are contained. He says that we have been asked by organization committees for letters of recommendation to their Governments saying that their colloquium is important and should be supported. In connection with sponsoring symposia we should also speak of our cooperation with the organization committee of the Congress which will be held next week in Edinburgh. In this case, our Union has contributed financially to the Congress. Up to now the Union has not given any scientific contribution to the Congress, only financial help. Because of Professor Hodge we had some connection with this Congress, but officially our help is only financial. The question whether the Union will in the future also contribute scientifically to the Congresses will be discussed under item 10, i.e. tomorrow afternoon.

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Somebody from Germany speaks. ?

Hodge: Between the two Congresses ICSU rules for helping Congresses were changed and it was not necessary anymore to adopt this.

(3)

The President says that the problem of Exchange of mathematicians is much less gratifying than that of organizing symposia. We have a Commission for the Exchange of Mathematicians. He personally thinks that this should be one of the most important activities of the Union. But up to now no concrete result has been presented and we shall make quite concrete suggestions for the future. This will be discussed under 4c. He then says that he must criticize our members in a certain way: we were always waiting for some suggestions or wishes from the side of the mathematicians of the various countries. There must be some concrete idea how we could promote the exchange of mathematicians

but we never got any suggestions. He urges members to make suggestions and criticisms. He also asks them to criticise our reports as this would be very stimulating.

(4)

Not as important but also of some importance is the question of our Commission for Scientific Publications which will be discussed under 4b. Any questions about this should be made later on.

(5)

Then he speaks about ICMI. Prof. Behnke, the President of this Commission is not here but it is hoped that he will arrive until tomorrow. This Commission is very important and has a very difficult task. ICMI problems are of very great importance to the Union. Behnke should have given a detailed report on this Commission under 4d.

(6)

World Directory. It exists. Less than an year ago we thought it impossible but it does exist now and shall be reported on later.

(7)

ICSU: Prof. Koksma is a member of our EC and at the same time the official delegate of ICSU to our General Assembly. He shall report on ICSU later on.

The President says that the mathematicians are very fortunate in being independent financially and in any other respect in opposition to scientists who depend on the help of industry and army. The Union is the one place where mathematics should be united. There has been some gratifying activity in the Union, but many a wish has not been fulfilled. Which are the appropriate tasks of the Union?

Some of these points will not be discussed anymore later on.

Eckmann translates the President's speech into French, Alexandroff into Russian

Leray (France) says he is happy to have the new Union members here and expresses the hope that there will be more ~~xxxx~~ new members in the future.

Kurepa (Yugoslavia) says it might be useful for the Union to receive periodic reports from the adhering organizations.

He repeats his <sup>e</sup>speech in French.

The President acknowledges this. But he does not think ~~this~~<sup>it</sup> is possible for practical reasons to have a report every year. The character of the various adhering organizations is different (academies, societies, departments of governments etc) and even though he agrees in principle with Kurepa it will be difficult to handle it the ways Kurepa proposed. But the adhering organizations should try to keep in touch with the Union and tell the EC what they think would be an appropriate activity of the Union. We had some critical remarks from the United States and Germany.

Alexandroff translates this into Russian and German. He thinks Kurepa's suggestion is very good, it may not be possible to handle it exactly the way Kurepa suggested, but in any case it should be given some thought.

MacLane wants to underline Kurepa's remark. It is important for the adhering organizations to have meetings. The National Committee in the States has had only one meeting, but this proved to be very helpful.

Morse: Part of the reports of the adhering countries could be published in the Bulletin.

Eckmann says that we always were very willing to have part of our reports published in official papers.

Denjoy: I think Kurepa's idea is a very good one.

Amira (Israel): Kurepa's remark is very useful, if these reports could reach the IMN, giving information on what goes on in the various countries. He translates this into French.

Denjoy: if a National Committee has a suggestion and communicates it to the EC, this would be a very good idea.

Kurepa says these reports could be mimeographed and sent out to all N.A.O. The President says that the EC will be happy to get any kind of response, positive or negative.

#### 4. COMMISSIONS OF THE UNION.

##### a) World Directory.

Hodge reports: Reports of this Commission have been submitted regularly to the Executive Committee. The World Directory is now completed and is on sale. A number of copies will be on view in Edinburgh during the Congress and by the time the Congress starts, they will be for sale. The Directory lists 3400 names and gives the best addresses that we know. He asks the National Committees to keep the Directory informed of any changes, either addresses or persons.

The President raises the question whether the Commission on the World Directory should be discharged or continued. The EC's opinion is that the task of this Commission has been achieved. His proposition therefore is to discharge the Commission of the World Directory. Are there any questions?

Morse wants to know whether a Working Committee will replace the Commission.

Hodge answers him that the work has been completed and nothing can be done until we see how things work out. In a year or so we can decide what to do.

He recommends that the EC takes suitable action at the necessary time.

Motion Morse submitted: I suggest that the Commission on the World Directory is discharged with thanks and that the EC takes whatever action it deems to be necessary in the future.

Kurepa supports this proposal. Suggests that the Tata Institute take over for information.

President: this is mentioned in the preface of the World Directory.

Eckmann translates motion into French.

Motion accepted.

The President addresses his thanks to Prof. Chandra for his work and initiative with regard to the World Directory.

Applause.

b) Scientific Publications.

The President explains that Prof. Boas, Chairman of this Commission, is not here and that Prof. Eckmann will read the report.

Eckmann reads report.

President: This Commission also (?) reports that it has not had a concrete success. Shall we dissolve this Commission? This question was discussed by the the EC and we think that despite of the lack of success we should not discharge it. Let us try once more.

Koksma says that he was only appointed to this Commission very recently and with respect to the uniformal decimal classification system. A few weeks ago a reprint appeared of the old book on that system which shows how necessary it would be to have a new system. It would be wise to separate these two things. ICSU has a special Board for documentation and it would be good if we had such a Commission to complete this initiative. In his opinion, the Publication Commission should not be dissolved now. Amira and Fenchel were of the same opinion.

Offord (UK) emphasizes the wish that papers in Chinese etc. be translated into Western languages.

Eckmann says that there are projects for translation from Russian. Pergamon offered a translation service but the American Mathematical Society has an excellent translation service. But it does not include Chinese. So this is one reason more not to discharge this Commission.

The President supports this. Suggests that this is submitted to the EC in writing.

Amira says that this Commission was not born under a lucky star. The President wanted to retire and the replacement took some time. S.....? (symposium?) science and technique of printing mathematical papers. He is against 2 Commissions.

The President is for two Commissions. Supported by Koksma, who is afraid that the members of the one Commission are less interested in the new one.

Eckmann: I see no reason why we should not have a new Commission and have just the people in it who are interested in that sort of thing. We should not discharge the old Commission and we should not confuse the new and the old one. My motion is to create a new Commission on Documentation of Mathematical Literature.

Amira: First we have to decide whether we shall have two Commissions and then we shall choose the members.

Denjoy says when he was in Russia in 1955 he saw the Institution for Documentation and was very impressed. He says he is sure that the Russian delegation will have important suggestions to make on this question.

The President refers to Eckmann's motion to establish a new Commission on Documentation of Mathematical Literature.

Bompiani: You have to read this motion and then someone has to second it.

Eckmann reads his motion.

Hodge: I support that.

Eckmann says that we shall write to ICSU and tell them that we have established a new Commission.

He repeats his motion. It is accepted.

He then asks the General Assembly whether they wish to discharge or continue the Commission on Scientific Publications. He suggests that Koksma, Amira, Sansone and Fenchel (as old members) form a small committee and submit suggestions to the General Assembly tomorrow.

Koksma says that he already submitted proposals to Boas. He asks President to enlarge the task of these four members that they also may consider the Documentation Commission. He will give a short report on the findings of this committee by tomorrow.

The President suggests an intermission of 10 minutes (unanimously adopted).

c) Exchange of Mathematicians.

MacLane refers to Davenport's (Chairman) report of which the delegates received a copy. He comments on the various forms of organization under this Commission such as Summer Institutes etc. Then he refers to the Union Lecturers Commission which cares for the exchange of mathematicians between two different and if possible distant countries. Main task: to keep the Union supporting the visiting lecturers. The best way to help young mathematicians is to support them by scholarships, especially those from countries where there is not already a national fellowship. A small sub-committee investigates applications.

The President thinks that in many a country there must be mathematicians wishing to visit other countries.

Morse thinks it would be a good idea for the Commission to collect all information on existing possibilities of exchange (fellowships, visiting lecturers) and publish it.

Offord (UK) says that the Union might sponsor these exchanges in a more active way than it does now. The Davenport report stops short where it speaks only of mathematicians visiting in Europe, Why should only Europe be involved, we should even include countries which are not members because they may be members which have no mathematical body which could adhere. He hopes that the Commission will continue its activity.

Kuratowski (Poland) expresses his pleasure that so many countries, and practically all countries in the world are represented in the Union. Specialized symposia are very good but it would also be good to have general symposia, there seems to be a need for this. May be the next EC could give this proposal some thought. Suggests to create a Central Library. There are libraries which are almost complete. If we had a complete library like that it could be of much help to countries which are not fortunate enough to have the means to possess a library like that. We could even augment the number of .....

The President thinks this idea is very interesting, but also a little bit difficult to realise. But perhaps something could be done about it. As to the proposal of the symposia Kuratowski made, it does not belong to this item of the agenda, but is very important and should be discussed again.

Kneser (Germany) thinks such big Colloquia may be successful. As to the underdevelopped countries, there are some underdevelopped regions in another sense than financial. The Union may do a good thing by visiting Universities.

The President says that the Union cannot very well send a delegate to some Uni-



versity or other just because they think there is no algebra being taught there. It would be interesting to have suggestions from far-away countries, like Australia.

No response from the Australian delegate Prof. Green.

Then the President emphasizes the fact that he would like to make it possible to exchange mathematicians in such a way that A and B exchange their jobs for a year or two, each teaching in the other ones University and getting the other's salary. Anyway, a commission which has this problem in mind, is necessary. This commission shall not be discharged even though its name is not quite appropriate. May I assume that you agree in the sense including the new program of these IMU lecturers and investigation of the problems mentioned in the session, that this Commission shall be continued?

Motion: the Commission on the Exchange of Mathematicians shall continue its activity direct by the new program as established by the Committee on Promotion and Development submitted to the delegates.

Motion adopted.

Kurepa thinks these exchanges should also be made for high school teachers. He is sure that this would be an extremely good thing to do.

Chandra is of the opinion that "exchange of mathematicians" without describing what kind of mathematicians, would not exclude high school teachers.

The President agrees that we include teachers of all levels. But he is afraid that the problems of high school teachers are even bigger than those of scientific mathematicians and it will be difficult to raise funds. In principle he agrees completely.

#### d) I.C.M.I.

The President informs the delegates that a cable was sent to the missing Prof. Behnke, asking for an immediate reply in case he would be unable to attend the Assembly. In that case, Kurepa, as Vice President, would be asked to make up a short report on ICMI.

#### 5. SYMPOSIA

The President asks the members to resolve that sponsoring symposia should essentially be continued in the same way as before.

Resolution accepted.

Alexandroff (USSR) wants to know whether this is the right moment to make propositions for symposia in the future.

The President's answers that we already have propositions for symposia in 1959 and he thinks that the new EC will take care of that.

Eckmann says that concrete symposia proposals will have to be submitted to the new Executive Committee.

9. RELATIONS WITH ICSU AND UNESCO

Professor Koksma, the official delegate of ICSU:

He regrets that Dr. Fraser is not here, but he (Koksma) as an EC member and ICSU delegate at the same time has the advantage to see both sides and can perhaps speak more frankly than Dr. Fraser might have done. He explains that UNESCO is a specialized agency of the United Nations and as such is a government. <sup>al organization</sup> The section of UNESCO in which our Union is mainly interested is the Department of Natural Sciences. In most cases UNESCO helps and assists through the ICSU which is a non-governmental organization which is absolutely independent and is older (1900) than UNESCO. It was dissolved after the first World War and replaced by a Research Council. In 1931 ICSU was established, which is a truly international body. Koksma reads from ICSU Statutes:

- 1. To coordinate and facilitate the activities of the international scientific unions;
- 2. To act as a coordinating <sup>body</sup> for its adhering organizations.

National members have only one vote, unions have two or three votes. There are general unions (like IMU) and more specialized unions. The Executive Board consists of delegates from the various unions. Our IMU only takes a modest place, for there are many unions with <sup>big and expensive</sup> difficult programs.

As to finances, every union has <sup>to</sup> send in its budget and last year the unions asked for about \$ 100,000.- more than the amount available at ICSU, so ICSU has to cut down heavily on the asked allocations. It is important that mathematics, which is the oldest science in the world, is represented in ICSU and we should be glad that we are members. Once a Union is admitted to ICSU, it cannot get funds from UNESCO anymore.

Relations between IMU and ICSU were very good and they did their utmost.

Then the President asks whether anybody has a question with regard to ICSU.

No answer.

-- Meeting of Monday afternoon closed --

-- 2nd Session, Tuesday morning 9.30 --

The President informs delegates, that Professor Behnke has arrived and will read his report on

4 d) I.C.M.I.

-- see draft Behnke --

The President thanks Prof. Behnke for his report. ICMI is a very important part of IMU. He gives a ~~very~~ short résumé of Behnke's report. The national sub-commissions are the groups (they exist in about 24 countries) where the real work is being done. It is easy for neighbor countries to meet; <sup>therefore</sup> ~~but~~ it would be good if there could be <sup>groups</sup> other groups in other parts of the world, <sup>similar to the</sup> ~~not only in~~ Western Europe. This group was very successful and the General Assembly should appreciate this work and ask the Commission to continue with it. The activity of this group should by no means be interrupted. It should be a task of the General Assembly to try to form new groups in other parts of the world. It should submit a request to ICMI to form such new groups.

Eckmann translates President's speech into French.

Denjoy thanks Eckmann for his translation.

President: these regional groups may even exist in countries which are not members of our Union. If they express the wish, they may work in the regional groups of ICMI.

Kurepa supports President's wish.

Maxwell (UK): it is obvious that we wish to extend our work. The family spirit which has grown in this group will be harder to cultivate in larger groups and the links between these regional groups and the common link to the center will be harder to establish but I hope it can be done by friendly arrangements.

Jeffery (Canada) is somewhat hesitant about too much urgency about continental groups. Each country has to work with what it has. (rest of his speech unintelligible).

Behnke acknowledges proposal of Jefferey. Refers to the two reports written in German. The difference of language in the Commissions is very important.

The President says that ICMI should always try to keep the contact up between the teachers of different countries, instead of only sending out reports every four years.

Resolution on ICMV ?

Chandra wants to support Jeffery strongly. A Committee on mathematical instructions was set up during the conference in Bombay which is semi-officially connected with the Union and still exists. India, Pakistan, Thailand, Burma, Ceylon etc. belong thereto. Each national group is furnished, if it so wishes, with the assistance of a specialist who will go there and work with the group for about six months and helps them prepare a report on their work and problems. The one difficulty is that you need a lot of work. Their budget ran into the \$ 100,000.- for the last four years. Other problems like the national groups having sub-groups and one sub-group being afraid that the other will invite a Swiss instead of an American or the other way round and so on. Chandra says he just wishes the others to see that the real difficulty in bringing about changes is not only in mathematics, it lies much deeper than that. It is a pity that the work of that group is not within the framework of the Union.

The President thanks Chandra for his remarks. If there are no other remarks, he will come back to the resolution: First, that the GA approves of the activity of the group of countries in Europe and insists that this activity be continued; Second, that it recommends to the Commission that during the next period of 4 years the Commission should try to induce or assist similar activities in other parts of the world.

Eckmann translates resolution into French.

Kurepa makes some remarks.....

Koksma says, the National Sub-Committees should have a close informal contact with our Commission. They could send someone as observer to our Colloquia

The President says that the activity of ICMI should not be restricted to members of the Union. Shall we take this in the printed Statutes or Regulations of the Union or not? I think you all agree that if ICMI has a chance to form a group or help in any country, it will do so.

Accepted by delegates.

6. FINANCIAL REPORT AND BUDGET 59-62

Eckmann: report of last four years is contained in the "reports of the Secretary to the Union". I do not have much to add and would just like to make a few remarks with regard to the last report. He then refers to different items of "expenditures". - The budget established at the last GA was very good and a certain amount was saved. There is an active balance left in 1957 of approx. \$ 2,000.-. Active balance means money from member countries and money from ICSU which was

not spent.

We have to make an extra report to ICSU too, which covers another period that the one of the adhering organization.

Actual expenditures are bigger than in former years because of the growth of the Union. Travel expenses used to be quite unimportant in former years and were just used for members delegated to Symposia.

Since last year we have to finance our own EC meetings with our own funds. For the next period they will be very expensive since we have two more members in the EC and some of them are very far away. Then he refers to the formal financial statement signed by Prof. Nolfi which is done in the actual currencies carried. We now have a certain amount of savings which can be used for supporting colloquia etc. in case ICSU contribution should be very short one year.

President: are there any remarks to this part of Eckmann's report?

Offord (UK): in 1957 the Union was underspending its money.

Eckmann explains that we had two savings with respect to items ? and ?

We had a certain amount of money left from ICSU because some activities had be postponed from one year to another, we started it (?) in 1957 but time was too short and it was too late to do something else with the money and we transferred it to next year.

(?) Exchange  
Money?

Offord refers to large balances on December 31, 57.

Eckmann: there ~~was~~<sup>is</sup> a resolution taken in former years to save up some money as a reserve for later years.

Chandra: Bompiani worked very hard to get these savings and it was understood by the EC that these \$ 7,000.- would not be touched.

Eckmann says when he took over, he was asked by the EC to spend money, but you have to get a certain experience first and then some symposia even return <sup>at</sup> part of our grants.

Resolution.

Chandra: I think we might formally move that we express our thanks to Professors Bompiani and Eckmann that they took such good care of the finances of the Union and that we have no longer to worry about finding money but only about spending it.

Applause.

Eckmann then refers to mimeographed IMU Budget. He states that our work with the Commissions should continue, they need our financial help. - We need a

big Contingencies Fund for travel expenses in connection with EC meetings etc. The Budget Committee had a short meeting this morning and decided to recommend to the General Assembly the acceptance of this budget.

Eckmann translates his speech into French.

Montgomery (USA): I motion that this budget be accepted.

Eckmann: is a formal vote required? (repeats in French)

No formal vote.

President: Then this is accepted. I think we have to be very grateful to the Secretary for keeping everything in order, it is a very big job.

Motion to thank Bompiani and Eckmann.

## 7. REVISION OF STATUTES OF UNION

### ARTICLE 12:

President: there are two important points in this article. First, we propose to increase the number of EC members from 3 to 5, according to the growth of the Union. Second, there is another new provision that the retiring President shall stay in the EC for another four years as a member without vote, in order to ascertain a continuity. Emphasizes importance of this change of Statutes, in having the old President as a sort of advisor.

Eckmann translates this on request of the Russians into French.

Are there any remarks to this?

No remarks.

Article 13: Eckmann reads new article.

Kneser: should it not be "members of the Union" instead of only "members".

Eckmann: this is contained in the Addenda to the changes of the Statutes.

Jeffery: Does majority mean votes or members?

Amira: I think it will be votes.

? should be added to art. 13 to make it more clear.

Eckmann: all we want to know is whether the members agree that the votes are meant by "majority". Drafting Committee will be asked to submit a version of this.

Article 15: Refers to addendum of changes which leave out second part of this article.

France objects to the version of gold weight.

President: we shall fix the amount later on.

Article 24: read by Eckmann.

Morse asks whether they can make proposals for changements of Statutes now.

Eckmann: yes of course.

Russia demands that the Statutes be translated into Russian too.

B. Jessen (Denmark): This question of authoritative texts was discussed in the first General Assembly and it was decided that not only one language would be used for the Statutes but several.

Kurepa: I approve of the Russian proposition made by Sobolev to have the Statutes in Russian too.

President: I am in favor of this and suggest that the National Committee of the USSR produces this text and sends it to the Executive Committee for approval. The Executive Committee must make a resolution that the Russian text of the Statutes is as authoritative as the English and French ones. For practical reasons it is good that the Union behaves differently from ICSU. It would be better if the number of authoritative texts would be increased despite of this paragraph in the ICSU Statutes.

Chandra says that Sobolev's proposal can be considered as an amendment to the present statutes. I therefore motion

1. to change article 27 as follows: the English, French and Russian texts of the Statutes shall be considered as equally authoritative,
2. this General Assembly resolves that the Russian text of the Statutes be prepared by the Executive Committee.

Eckmann: the second part will not be taken into the Statutes, this is just a proposition from Russia. Do you agree that we change the Statutes in that way?

They do.

~~Nothing accepted~~

Kneser (Germany) says in German that in his opinion it is not good to have only one authoritative text. We speak different languages and each one chooses his own language. So in consideration of these circumstances, Germany does not put much weight on this question and our Assembly shows that there is a certain practice among members to use the<sup>ir</sup> own language, hoping to be understood. (the long and the short of this speech: the German speaking countries would have as much right to ask for a German version of the Statutes as the Russians

and French do, but will not take advantage of it, since everybody seems to understand everybody else anyway).

Eckmann reads the two motions from Russia.

If there are no objections, these two motions are accepted.

No objections - motions accepted.

-- 12.30, end of Tuesday morning session --

-- 2.30, afternoon session --

Eckmann refers to the By-Laws. There is no addendum to the changes of the By-Laws, so he will simply comment on changes as proposed by Executive Comm.

5b) new terminology

5d) propose is better than determine

5g) insert "of the Union" after members.

This will be included in the vote. Are there any comments?

President: yes. The General Assembly shall... does not mean that the General Assembly exclusively can do this or that the General Assembly cannot do anything else but this. The word "shall" is not well chosen in that connection.

Eckmann: any comments to President's remark?

no comments.

Eckmann: so we shall leave the formulation as it is.

He then comments on the small changes made.

7) passes without comment

8) do.

9) do.

10) do.

11) do.

12) do.

13) do.

Eckmann: No comments. We have now accepted the proposed text (with certain amendments) of Statutes and By-Laws. They shall be printed and submitted to the General Assembly for acceptance.

He repeats this in French.

He proposes that this be voted on "en bloque" (bloc?)

Do you agree to vote on Statutes and By-Laws all together? any objections?  
Unanimously accepted by raising hands (there are 72 votes present)



8. REVISION OF THE STATUTES OF ICMI; (notes made by Prof. Eckmann)

Hopf: Draft; after the discussion of this morning (Kurepa), the draft should be changed - ICMI should not be restricted to IMU-members.

Proposed: Committee to prepare a new proposition for the constitution and terms of reference of ICMI.

Only a few points:

- a) National Subcommissions, number of delegates be diminished (only one per subcommission)
- d)
- e) = recommendation, not law (already accepted)

Membership fees? Financial sources?

Not to change the old rules now, give it to a Joint Comm. of ICMI and IMU.

Behnke. Authorization G.E.C. for changes in a short time.

- Hopf.
- a)
  - b)
  - c)

Chandra. General Assembly resolves that new terms of reference .....  
Motion.

Two resolutions are accepted (prop. by Chandra, discussion Hopf, Behnke, Jessen, Maxwell).

9. Representation at ICSU: In general President and Secretary. Accepted.

Koksma: G.A. of UNESCO, all countries send delegations. Se ? of National Sciences regards us, please inform delegates to pay attention.

10. IMU AND FUTURE INTERNATIONAL CONGRESSES

- a) MacLane  
(American Delegation)

Style of International Congresses.

Lectures?                    )  
15 minute talks?        )        in future Congresses etc.

IMU might be a proper place to discuss this.  
 Expository talks?  
 Longer than a week?  
 Few lectures per day.

Alexandroff: Question sérieuse. Difficultés d'organisation. Congrès doit continuer.

Morse: D ? of the right of presenting papers.

Kurepa

Köthe

Koksma

Hodge

Problems in preparing Congresses: Decisions must rest with the individual organizers.

Are International Congresses useful? Yes. Specialization!  
Meet the leaders in a field.

Morse: Simultaneous session

Hopf: Congresses too big? Edinburgh bigger than Amsterdam?

Hodge: 1680 members.

Stationary.

Small papers?

Hopf: People seem to like the big Congresses.

Enjoy: Limitations des petites Communications? Des Comptes Rendus imprimés. IMU.

MacLane: The present size is too small compared with mathematical activity.

The congresses will be too big or dead (???)

Leray: Proposition: IMU peut aider les Congrès.

Colloques avant ou après les Congrès.

Eckmann:

Koksma: Experiences in Amsterdam. They liked the Symposia and think they were successful.

Successful approximation to the classical style of International Congresses.

Hodge:

Hopf: Two weeks?

Country big, no help. Small help required.

International Committee.

If necessary - start a body - will be charged : IMU (?????)

Sobolev: Publish all suggestions and wishes.

Chandra: Independence! Int.

?

Eckmann:

Text to be submitted.

Denjoy: IMU prie Hodge de déferer la décision pour les Congrès futures

Demander à Hodge de faire ..... Committee exists. end of notes B.E.

(a few notes made by TT on item 10.)

.....

Hodge: if Leray's suggestion is carried out, it will even be more difficult to find a country willing to organize a Congress.

President: It seems that most delegates here are in principle in favor of a large Congress every four years. It becomes more and more difficult to organize them and more and more difficult for the lecturers to go there. The Union should just ~~offer~~ for this reason try to discuss the possibility whether we could do something to help these Congresses, i.e. if the G.A. thinks the Congresses are worth to be held. If your answer is yes, then it is our duty to think of possibilities how to help these Congresses. We already help to finance them, but we would also like to help the Congresses by helping the scientific preparations. Of course, ~~these~~ this depends very much on the country in which the Congress is to be held. If they have a large number of mathematicians, they may not be in favor of taking help from outside, on the other hand, if a small number of mathematicians should decide to organize a Congress, they might be very glad to get help from an International Committee. For such International Committees our Union would be the basic organization.

Hodge: ..... (TT out of Ass. room)

11. PROPOSITONS FOR CHANGE OF GROUP OF ADHERENCE

Motion Chandra: re move of Switzerland and Netherlands from group II to group III.

Accepted.

(Canada?)

13. RESOLUTION APPROVING REPORTS;

Chandra: It is a general ~~xxx~~ rule for the G.A. to approve the reports which have been submitted by the Executive Committee.

Morse: we accept them.

The printed motions are distributed.

Eckmann reads all of them in English and French.

-- 5.30, end of Tuesday afternoon session --

-- Wednesday morning session, starting 9.30 -- (notes made by Prof. Eckmann)

4b) Commission on Scientific Publications:

Koksma reports.

Amira, Fenchel, Koksma discussed the problems.

Ideas and projects

a) symbols etc. can be given to the new Commission on "Documentation of mathematical literature".

b) Publication problems themselves should be discussed by the Commission or by a Subcommittee of the EC (including the old Commission on Publication)

- Proposed:
- a) Dissolve the Commission
  - b) Give some problems to the new Commission (?)
  - c) Ask EC to study the real publication problems.

end of notes B.E.

(notes made by TT on this):

Koksma: .....

MacLane expresses his doubt about this suggestion.

President: as you can see the opinions are different. Koksma thinks we should discharge the Commission, MacLane is in favor of keeping it. My personal opinion is that we should not continue it. I prefer to recommend to the new EC to have in mind the problems and leave it to them to establish a committee or establish a new Commission by postal ballot.

Morse: (entirely unintelligible) .....

Chandra: this has been studied during the previous term. Neither of the two organizations was willing to make any changes in their organization. they were willing to exchange views but nothing beyond that could be achieved. I don't think that anybody but the G.A. can set up a Commission. I am in favor of MacLane's proposition, i.e. continuing.

Amira: would have preferred a name saying "Publications and Documentation".

He goes on and on talking.

I do not have the impression that the present EC can take any decision now.

He is still talking.

President: May I just repeat that Amira suggests to discharge the Commission for Scientific Publications but to enlarge the terms of reference of the new Commission on Documentation in the sense that this Documentation Commission shall have

in mind also the problems which the old Publication Commission had in its program. It shall not directly deal with these points, but it shall call the attention of the EC to these points.

Was this what you meant to say?

Amira: yes. The only thing I would like to add is that I would also like to have the name of the Commission enlarged.

Eckmann: I think we have decided yesterday to separate these two Commissions for reasons of practical nature. There is absolutely no use in coming back to this point and start all over again. Professor Koksma did not make a very definite statement in his report whether he actually wanted the Publications Committee to be discharged or continued. On the other hand, we had two suggestions to keep up and I am personally in favor of that. There is no proposition of the EC, we just give our opinion individually. I think we should keep that Commission and ask the new EC to solve future problems.

Morse: ..... (unintelligible)

Chandra: I repeat what Morse said: he is reconciling the point of view of the President with the point of view of MacLane and myself.

Koksma: I really made a definite proposal to dissolve this Commission. The problem is, what should be done afterwards. If the Commission is dissolved, you are completely free to start all over again. You can take or leave my proposition.

President: Because it is natural to conserve the problems of this Commission, it would also be natural to leave the Commission. What I do not like is to leave this to the new Commission. But I have the impression that most of ~~the~~ you gentlemen are of the opinion that it would be better to continue. Only the General Assembly has the power to establish a Commission. I think this could also be done by postal ballot by the members.

Sneddon (UK): I wonder whether we could compromise on this thing so that ~~x~~ the publications should continue, but leave the discussion to the new EC.

Chandra: if the Commission is to continue, its composition will have to be determined just as other Commissions.

Motion made by Sneddon.

Eckmann reads it: The General Assembly resolves that a Commission on Scientific Publications ~~x~~ be established and that the terms of reference of that Commission

be discussed by the new EC and the Chairman and the members elected by postal ballot.

Eckmann translates motion into French.

James (Canada): According to the By-Laws, the terms of reference are subject to postal ballot too.

Morse: I wish to second this motion. I cannot see how we can do otherwise. As I can see, the EC is divided and this is the only solution.

Eckmann: does anybody want to vote on this?

No.

Eckmann: then it is accepted and shall be given to the Drafting Committee.

Eckmann: there are four new resolutions which were mimeographed in the meantime and have to be accepted by the GA.

Blanusa (Yugoslavia): Does "in particular welcomes" and "exprime un intérêt tout particulier" mean the same thing?

Kneser: item 7: the total number not numbers.

Chandra: majority of votes sounds rather funny.

MacLane: It is very hard to combine French and English so that it means exactly the same thing.

Reads amended text of 4d which Blanusa questioned. New formulation accepted.

#### 14. NEXT MEETING OF THE GENERAL ASSEMBLY

President reads motion of 4 years ago (resolution see last GA).

Eckmann reads two new regulations which were mimeographed in the meantime. Move of Switzerland and Netherlands from group II to group III. There was a request from Canada for the same move. The EC, in a special meeting, approved of this and submits the request to the GA.

Applause.

Eckmann: then this motion, including the one regarding Canada, is approved by the General Assembly.

(TT out)

Motion (not mimeographed, for minutes only):

"This Assembly authorizes the EC to call the fourth General Assembly of the IMU at approximately the time and place of the next international Congress of Mathematicians", "L'Assemblée autorise le Comité Exécutif à convoquer la 4e Assemblée Générale de l'IMU à une date et en un lieu qui soient voisins de ceux du prochain Congrès International de Mathématiciens".

(TT back)

Leray proposes that we shall also have open symposia not only closed ones, like we have an open Congress and that these symposia be organized and announced by us.

Eckmann asks Leray to withdraw his motion because this throws a wrong light on the symposia which had been held so far. The former symposia were announced everywhere and not only invited speakers were allowed to speak. Of course, we like this suggestion, to study the possibility whether also Congresses on a special topic can be organized. We know what we are ? allowed, but if such a motion is printed in our report it might create the wrong impression.

Applause by Copson.

Leray: je n'insiste pas.

President: this is not a resolution, but we shall take it in our minutes to thank the Spanish delegation for its suggestion and to study it.

(TT out) -notes made by Prof. Eckmann-

Sobolev: texte anglais/français, aussi texte russe.

Morse: (see notes E.)

Denjoy: d'abord text anglais, français après

Chandra: ...wishes to thank the Spanish delegation for its suggestion to ? conferences larger than symposia and refers it to the EC for further study.

-end of notes E.-

President refers to the nominating committee list: one more name was submitted, but was withdrawn again.

Chandra: the situation is identical with the one in the last General Assembly where the number of persons to replace the old members was identical with the seats to be filled.

Leray: this is an international meeting and the votes have to be made very carefully.

12. ELECTIONS

b) Commissions

President: I nominate the following members for the Commission on Exchange of Mathematicians:

- President: S. MacLane (USA)
- Members: E. Bompiani (Italy)
- Cherry (Australia)
- R.D. James (Canada)
- E. Marczewski (Poland)
- S.L. Sobolev (USSR)
- K. Yosida (Japan).

If you agree with this, then they are elected. There will be no other formality. Applause.

President: in case they don't accept, the commission is free to coopt others.

" : then we have this new established Commission on Documentation: *of Math. Lit.*

- Chairman: J.F. Koksma (Netherlands)
- Members: B.A. Amira (Israel)
- W. Fenchel, (Denmark)
- G. Sansone (Italy)

who also are members of the old Commission on Scientific Publications.

President:  
ICMI. Rules of The Hague: the GA elects 10 members-at-large on nomination of the President. The 10 members-at-large which I nominate are the following:

- Y. Akizuki, Japan (Kyoto)
- A.D. Alexandrov, USSR (Rektor, Univ. Leningrad)
- H. Behnke, Germany
- P. Buzano, Italy
- G. Choquet, France
- H. Fehr, USA
- H. Freudenthal, Netherlands
- G. Kurepa, Yugoslavia
- E.A. Maxwell, United Kingdom

~~and as President~~

M.H. Stone, USA.

Do you agree with these 10 names?

Applause.



I have to nominate one of these 10 members as President of ICMI and my choice is Prof. Stone, USA.

Applause.

Then the elections of the Commissions are finished.

a) Executive Committee

Köthe, Sobolev and Wilks nominated for counting voting slips.

number of slips distributed:	71
" " " received back:	71.

New EC unanimously accepted.

Applause.

Morse: reads resolution drawn up by USA, thanking the leaving President (Hopf), Vice-Presidents (Denjoy and Hodge) and MacLane on behalf of the GA:

"The General Assembly resolves to place on record its appreciation of the valuable services rendered to the Union by the outgoing members of the EC, President Hopf, 1st Vice-<sup>r</sup>resident Denjoy, 2nd Vice-President Hodge and Professor MacLane. The assembly notes with satisfaction the increase in the membership of the Union and in its activities, and expresses its thanks to President Hopf for his particular contribution to the spirit and goodwill that prevails among the members of the Union".

"L'Assemblée Générale désire exprimer qu'elle apprécie toute .....".

Sobolev speaks a long time in Russian. Then he translates his speech into French:

"Je voudrais saluer le nouveau Comité Exécutif. Je voudrais aussi exprimer quelques suggestions pour l'avenir. La délégation soviétique et quelques autres, par exemple les collègues italiens (Bompiani asks to have "deux collègues italiens" since he is not of this group) voudraient exprimer le désir d'apporter quelques changements au mode de préparation des élections.

Il nous semble que le Comité ne doit pas proposer d'avance la liste des candidats sans avoir consulté préalablement assez largement au moins les Comités Nationaux adhérents à l'IMU. Il nous semble inutile d'indiquer tous les inconvénients qui découlent de cette pratique.

La présence d'une liste proposée, multipliée par miméographe avant le commencement de la session a conduit naturellement à une position dans laquelle tous les autres propositions pourrait faire l'expression indirecte d'une certaine méconfiance aux collègues proposés par le Comité Exécutif. ↘

Telle procédure endommage la liberté de la discussion.

Quoique tous les officiels élus maintenant sont sans doute complètement dignes de la confiance qui leur a été donnée par l'Assemblée, on ne peut pas être sûr que le choix ne pourrait être meilleur en résultat de discussions et de consultations plus larges.

Dans les cas où le Comité National est composé de savants bien connus - et je pense que c'est toujours le cas - il serait sans doute plus profitable d'avoir, au moins, des consultation sur chaque candidat avec le Comité National respectif s'il ne paraît convenable de faire des consultations encore plus générales. ↙

La pratique suivant laquelle le Comité Exécutif propose ses successeurs n'ayant pas parlé qu'à des personnes d'occasion qui peuvent ne pas représenter l'opinion publique, n'est probablement pas la meilleure."

*proposing  
candidate*

President, in answer to Sobolev's speech says he agrees with him that our method of voting was not quite satisfying. On the other hand, the EC had much more time and occasion to discuss the members of the new EC than it would have been possible for the General Assembly in such a short time. The present EC devoted much time and thought on this matter and he expresses his hope that the ~~choice~~ selection we made was a good one.

He then thanks the GA for the resolution of thanks which has been presented to the leaving members of the EC. Assures GA of his gratitude for cooperation shown to us in these three days. It is easier to preside a meeting of 70 than of 7 (aber Herr Präsident!!) The many discussions we have had in our EC have not been without success and facilitated the success we have had in the GA. He thanks his colleagues from the EC.

Applause.

President reads resolution of thanks to Principal of St. Salvator's College, Prof. Copson and Dr. Borwein who aided us in every possible way.

Eckmann translates into French.

-- 12.30, 4th session of GA closed --