



International
Mathematical
Union

Scientific Program of the International Congress of
Mathematicians

Guidelines for the Program Committee and the Organizing Committee

*Endorsed by the IMU Executive Committee on November 21, 2007,
Version amended by the IMU EC in April 2017.*

1. General purpose of ICMs

The International Congresses of Mathematicians (ICMs) are the most important IMU activity and need correspondingly careful preparation. Every ICM should reflect the current activity of mathematics in the world, present the best work being carried out in all mathematical subfields and different regions of the world, and thus, point to the future of mathematics. The invited speakers at an ICM should be mathematicians of the highest quality who are able to present current research to a broad mathematical audience.

In general terms, the Structure Committee decides the scientific structure of the ICM, the PC decides the speakers of the ICM, and the OC organizes the ICM.

2. Responsibilities of the Program Committee

The Program Committee (PC) is responsible for deciding the list of invited plenary and sectional speakers of the ICM.

It is understood that all decisions about the ICM structure are taken by the ICM Structure Committee. This includes the decision about the number and content of the sections, and target numbers for the number of talks in each section.

2.1 In its decision making with respect to the selection of panel chairs and members, and in particular, with respect to the plenary and sectional speakers, the PC should take into account appropriate

- gender balance
- geographical/regional distribution (including smaller countries as appropriate)
- representation of developing countries
- representation of subfields of mathematics

as long as these considerations do not compromise mathematical quality. Here a person represents the country that he or she lives and works in.

2.2 The privilege of sending the invitations belongs to the Organizing Committee (OC) of the ICM. Recommendations about the quality of the presentation and the expected audience of the lectures (see item 3.1 for plenary lectures) are to be emphasized in the letters of invitation. The invited speakers should also be informed about technical equipment available in the lecture rooms and receive hints about making best use of these.

2.3 In addition to carrying out its task detailed in item 2.1, the PC may make further recommendations to the OC and/or to the Executive Committee (EC) of the IMU,

concerning the arrangement of the program, that will, in their opinion, enhance the prospects of success of the ICM as a continuing institution.

2.4 The IMU hopes that every PC member will make every effort to attend the Congress.

3. Plenary, sectional, special, and other lectures, further activities at the ICM

3.1 Plenary lectures

Plenary lectures are invited one-hour lectures to be held without other parallel activities. When choosing the speakers, the PC should take into account that diversity of themes is most desirable. If two lecturers are likely to have a partial overlap, it is the duty of the PC to make sure that the OC brings this to the attention of the lecturers concerned. The lectures should be broad surveys of recent major developments, aimed at the entire mathematical community. Plenary speakers should be outstanding mathematicians and good lecturers. It is the privilege of the PC to select the plenary speakers. The PC may ask the sectional panels for advice but is not bound by such suggestions.

3.2 Sectional lectures and sectional panels

Sectional lectures are invited 45-minute lectures. Several sectional lectures are scheduled in parallel. The number of parallel sections will depend on the number of sections and sectional speakers chosen. The PC appoints a sectional panel that provides a (possibly) ordered list of suggested speakers. The panel should propose about twice the number of speakers than the number of speakers allotted to the section so that the PC has some flexibility, e.g., to meet the goals of item 2.2. The PC is free to negotiate with a panel on its suggestions. In case of conflicts the PC has the final decision.

3.3 Lectures associated with the IMU prizes, media coverage

Since the names of the winners of the IMU prizes will only be made public at the opening ceremony of the ICM, it is not possible to precisely schedule lectures of the prize winners in advance, and the number of such additional lectures needed will vary. For example, it may happen that a prize winner is already giving a plenary lecture. The OC should thus schedule five open one-hour slots for possible prize lectures (up to 4 for Fields medalists, 1 for the Nevanlinna Prize winner), some of which may not be needed. In addition, two or more such slots are needed for the Gauss Prize and the Chern Medal lectures.

Reports on the work of the Fields medalists and Rolf Nevanlinna Prize winner are to be provided for at the beginning of the Congress, if possible on the first day. The speakers are appointed by the medals and prize committees and are not to be made public before the meeting.

An account of the work of the Gauss Prize winner will be provided in the Gauss Prize lecture. This lecture should aim at the general public. The speaker of the Gauss Prize lecture will be determined by the Gauss Prize committee. The speaker's name should only be made public during the opening ceremony.

An account of the work of the Chern Medal winner will be provided in the Chern Medal lecture. This lecture should aim at the general public. The speaker of the Chern Medal lecture will be determined by the Chern Medal committee. The speaker's name should only be made public during the opening ceremony.

The practical arrangements are the responsibility of the Organizing Committee.

Arrangements for media coverage are the joint responsibility of the OC and the IMU. The President of IMU will communicate the names of the prize winners, speakers, and prize committee members to the chair of the OC in sufficient time for necessary arrangements (for example, travel and accommodation, naming of committees in the printed programs, media coverage) to be made. This will in turn entail that a small number of OC members will also need to know confidential information, and it is the responsibility of the chair of the OC to do everything possible to ensure that there is no leakage of this information.

3.4 Short communications, poster sessions, unscheduled mathematical activities

It has become customary throughout the world that granting travel support often depends on the delivery of a lecture or presentation of a poster. The OC is requested to provide – depending on the available facilities – space and time for such presentations. It should discuss and possibly coordinate its activities in this direction with the PC. The contributed presentations need review to avoid the presentation of obviously wrong, or trivial, results. The review of contributed presentation is a demanding task and can only be done by the OC.

Unscheduled mathematical activity, by small groups of people acting on their own initiative by organizing small seminars or the like, should be encouraged. The OC should take into account that such requests may arise spontaneously during the Congress.

3.5 Emmy Noether lecture

The series of Emmy Noether lectures honors women who have made fundamental and sustained contributions to mathematics. The Emmy Noether lecturer shall be chosen by a committee appointed by the IMU EC. The committee is advised to make its final choice after the PC has decided on the list of ICM speakers. The name of the Emmy Noether lecturer is announced in the program of the ICM.

3.6 Other activities

The General Assembly has repeatedly recommended the scheduling of some less formal scientific events of broad interest during the Congress for ICM participants and/or the general public such as lectures for a broader audience, round tables, video or software demonstrations, exhibitions, etc. The PC may suggest such activities, but the responsibility for organizing them lies with the OC.

4. Dissemination and publication of ICM contributions

4.1 The OC is responsible for the collection of contributions and production of the proceedings of the Congress. All arrangements must be approved by the EC, and the PC can make recommendations about this part of the Congress.

4.2 The IMU must have a non-exclusive, irrevocable, and perpetual license to distribute the proceedings in print and electronic form, by all present and future means, possibly with a delay of up to two years following the Congress. The OC arranges for the initial publication of the Congress proceedings. The OC should obtain a suitable transfer of rights from all contributors whose work appears in the proceedings, as well as electronic files for each contribution. The OC is responsible for providing precise guidelines as to how abstracts and papers should be submitted. Abstracts of all plenary and sectional lectures should be made available at the Congress in printed form. The OC is requested to also provide an abstract booklet of the contributed presentations.

- 4.3 The following are recommended arrangements:
- If possible, the invited plenary and sectional lectures should be published before the Congress in printed and electronic form.
 - It has become customary to print a daily ICM newsletter that informs the Congress participants of highlights of the day, special activities, and program changes. The OC is asked to consider the dissemination of such information.

5. Composition and appointment of the PC

- 5.1 It is the privilege of the IMU President to select the chair of the PC. The chair should be chosen before the EC meeting in Year 1 of the EC term. At this first EC meeting, all other PC members are appointed by the EC in consultation with the PC chair. It is desirable that PC members have ICM or IMU experience, e.g., as an invited speaker of a previous ICM. All PC members have to accept to abide by the IMU Guidelines regarding Conflicts of Interest.
- 5.2 The PC should have at most 12 members with at least one member nominated by the host country. The name of the PC chair will be made public upon appointment via IMU-Net. The names of all other PC members are to be kept secret until the Congress, when all names will be made public.
- 5.3 In choosing the membership of the PC the EC should ensure that there is appropriate subfield, gender and geographical balance, including membership from those working in developing countries.
- 5.4 The selection of the PC members needs coordination with the selection of the members of IMU prize committees. Members of prize committees should neither be PC members nor members of sectional panels. Prize committee members have to be informed about this side constraint in their letter of invitation. The complete list of all members of sectional panels should be communicated to the EC, helping the EC to avoid overlap with prize committees. The EC may give qualitative feedback to the PC regarding the diversity of the members of the sectional panels. The PC's response to this feedback should be in writing.

6. Guidelines for the work of the PC

- 6.1 The PC chair should be invited to the EC meeting where the other PC members are chosen. The SC chair may also attend the meeting.
- 6.2 The PC should appoint, for each section, the panel chairs and set up the sectional panels that will suggest plenary and sectional speakers. The PC chooses the panel chair and panel core members (usually 3-4). Then the core members plus the chair select the rest of the panel (total of about 6-8). All members of all sectional panels have to be informed about the IMU Guidelines regarding Conflicts of Interest and agree to abide by these in all deliberations. The PC must complete the lists of plenary and sectional speakers one year before the beginning of the ICM. The PC communicates the complete list of invited speakers to the EC. The EC can make qualitative feedback to the PC in terms of gender balance, geographical and scientific spread as well as possible conflicts of interest. If the GA has given specific instructions regarding the work of the PC, it will be the EC's responsibility to oversee the compliance of the PC with these and provide feedback to the PC about possible shortcomings. However, the PC has full responsibility for the final decisions.

- 6.3 The following rules should be applied:
- The composition of the panels should reflect gender balance and geographical spread.
 - No PC member should be a plenary or sectional speaker.
 - Members of the sectional panels should not be selected as speakers in their section but may be chosen as invited speakers if proposed by another sectional panel. Members of the sectional panels should be informed about this prior to accepting to become member of a panel. This applies also to candidates nominated by the host country.

The invitation letter to join the PC or a panel should contain these guidelines as well as the IMU Guidelines regarding Conflicts of Interest, and the rules of item 6.3 should be pointed out in particular.

- 6.4 A member of the OC may be a plenary or sectional speaker, unless he or she is a PC member. A member of the OC being a member of one sectional panel may be a plenary or sectional speaker if proposed by another sectional panel.
- 6.5 For a section involving Mathematics education and popularization of mathematics, the PC should consult with the ICMI President when choosing the panel chair. Two of the core members of the panel should be nominated by the ICMI EC. For a section on history of mathematics, ICHM should be involved in the choice of panel members.
- 6.6 The final lists of plenary and invited speakers should be sent to the president of the OC, who has the privilege to send the invitation letters on behalf of IMU.
- 6.7 The PC's responsibility for the plenary and sectional lectures normally ends with the submission of the speaker list. Communication with the lecturers, requests for abstracts and the written texts belong to the task of the OC. If invited speakers reject the invitation and if the substitution process defined by the PC was not successful, the OC has to contact the PC chair to decide on alternate invitations.

7. Suggested timeline for the work of the PC and OC

7.1 Year 1

The name of chair of the PC is made public after appointment via IMU-Net by the Secretary General.

After first EC meeting: IMU Secretary General informs Adhering Organizations and mathematical societies that the PC has been appointed.

September-December: First PC meeting should take place, suggest panel chairs and core panel members. Even if the composition of the Scientific Program has yet to be finalized by the Structure Committee, the PC can commence the discussion of panel chairs.

7.2 Year 2

January: Appoint panel chairs.

January-February: Appoint additional 2–4 core members of each sectional panel.

February-May: The panel chairs and core members appoint the remaining panel members in consultation with the PC chair (see items 8.1 and 5.4). The PC chair informs the Secretary General about the composition of all panels.

June: The Structure Committee informs the EC, the OC as well as the PC about the sections and their size.

The IMU Secretary General invites proposals from Adhering Organizations and mathematical societies for invited plenary and sectional speakers. The same is done electronically via IMU-Net.

May-December: Collect suggestions for plenary and sectional speakers from the panels, from individuals and organizations considered suitable. The PC may steer interaction between some panels, in particular, if there are overlapping suggestions.

7.3 Year 3

January: All suggestions should be received.

January-March: Final PC meeting should take place, finalizing the choices in consultation with the IMU President (see item 6.2).

April: Send final list of speakers and alternates to OC and President of IMU.

August: OC receive acceptance from all invited speakers (or alternates).

September: OC posts the list of speakers on the ICM web pages.

7.4 The deadlines of this timeline should be firmly kept. The PC chair is requested to remind and strongly encourage the colleagues involved to deliver the results in time.

8. Guidelines for the sectional panels

8.1 The panel chair and the core members choose the remaining panel members and subject to approval by the PC chair, in view of item 5.4.

8.2 The following rules apply:

- No person should serve on two sectional panels.
- Experience and tradition need to be transported to panels. Therefore, at least one core member should have some IMU/ICM experience, e.g., former EC member, previous panel member, former plenary or sectional ICM speaker, or former PC member. However, the number of persons serving on a panel twice should be kept low in order to include in the decision-making process large parts of the scientific community and to avoid "closed shops".
- For some sections it may be advisable to seek nominations for panel members from international mathematical societies representing the areas covered. Examples could be the Bernoulli Society for stochastics and the Mathematical Programming Society for optimization and control theory.

8.3 The names of all panel chairs and members are to be kept secret until the Congress, when all names will be made public. The PC chair instructs all panel chairs that the panel work is to be kept confidential. In turn, the panel chairs let all panel members know their obligation not to disclose any details of their panel work.

9. Financial issues

9.1 IMU covers the expenses for meetings of the PC and the prize committees. Before making financial commitments, the committee chairs have to contact the IMU Secretary General

concerning the budget available. All other financial matters are the responsibility of the Organizing Committee of the Congress.

- 9.2 A large-scale activity such as an ICM cannot be organized without the voluntary contribution of many individuals of the mathematical community. It is therefore understood that PC, panel members and invited speakers do not receive a honorarium. The OC is, however, asked to waive the registration fee for all invited speakers and the PC members.
- 9.3 The OC should be prepared to help some of the invited speakers and PC members if they have difficulties to receive financial support or to pay for their ICM attendance by covering part of the local and/or travel expenses.
- 9.4 It has become a tradition to make particular efforts that groups of mathematicians who have insufficient financial means, such as young mathematicians from developing countries, are partly supported to make their ICM attendance possible. Who is supported, in what way and how the selection is made depends on local circumstances, available funds, and the location of the ICM. The OC and IMU should negotiate on these issues and reach a consensus very early in the preparation phase so that application processes can be opened in time. The OC and IMU similarly negotiate how to handle the financial support (registration fee, local and/or travel expenses) for members of prize committees, prize winners, and persons delivering reports/lectures on their work.

10. Special issues/recommendations

- 10.1 It is recommended that the PC chair consults with the previous PC chair prior to starting the work of the PC. The previous PC chair may be invited to the first meeting of the new PC.
- 10.2 The PC chair is supposed to prepare a final report to the EC on the work of the PC, pointing out, in particular, problems that were encountered and suggestions for improving the work of future PCs and for updating these guidelines.
- 10.3 All available final PC reports are to be made available (confidentially) to a newly appointed PC.
- 10.4 The IMU should keep a database of persons who have served on PCs or sectional panels, have been chairs of such committees, or have been plenary or invited speakers.
- 10.5 The Organizing Committee of the ICM host country has the right to appoint one additional plenary speaker and up to four additional sectional speakers. The PC should negotiate with the president of the OC a mode for nominating the speakers from the host country so that the local choices can be taken into account when the final balancing is made. One possibility could be that the OC provides the PC with a list of nominees, not necessarily ordered, from which the PC can choose one plenary speaker and up to four sectional speakers. This will give the PC some flexibility with respect to the issues mentioned in item 2.2.
- 10.6 Letters for panel chairs and panel members could follow the appended model letters.
- 10.7 Panel chairs should know the names of the other panel chairs, so that they may coordinate their selection processes when there are overlapping areas between two or more sections.

- 10.8 A panel can suggest a joint invitation for one lecture; two or more mathematicians can be invited together to report primarily on a joint project. In each such case, those invited should decide how to deliver the lecture.
- 10.9 The IMU Secretary General should make sure that the OC sends invitations to the Congress to all persons serving on the PC and on sectional panels by making postal and/or e-mail addresses available to the OC.
- 10.10 These guidelines should be regularly updated.

Abbreviations:

EC	Executive Committee of the IMU
GA	General Assembly of the IMU
ICHM	International Commission on the History of Mathematics (a commission of the IMU)
ICM	International Congress of Mathematicians
ICMI	International Commission on Mathematical Instruction (a commission of the IMU)
ICMI EC	Executive Committee of the ICMI
IMU	International Mathematical Union
OC	Organizing Committee of the ICM
PC	Program Committee of the ICM
SC	ICM Structure Committee