



Preparing a Bid to Host an International Congress of Mathematicians (ICM)¹

1. Introduction

The ICMs are the largest mathematical conferences worldwide. They cover all areas of mathematics, and, with a few exceptions due to political events, they are held once every four years. The first ICM took place in Zurich, Switzerland in 1897. The International Mathematical Union (IMU) considers the organization of the ICMs as its most important activity. An ICM should reflect what is going on in mathematics in the world at the time when it takes place, present the best work of all mathematical subfields and different regions of the world, and thus point to the future of mathematics. The invited speakers at an ICM are carefully selected by an outstanding program committee that is supported by section panels. These speakers are mathematicians of the highest quality, able to present current trends of research to a broad mathematical audience.

The scientific prizes awarded by IMU are the highest distinctions in the mathematical world, and they are presented in the opening ceremony of an ICM: Fields Medals (two to four medals are given since 1936), the Rolf Nevanlinna Prize (since 1986), the Carl Friedrich Gauss Prize (since 2006), and the Chern Medal Award (since 2010). At the closing ceremony of the ICM, the Leelavati Prize, sponsored by Infosys, for excellence in mathematical outreach is awarded (since 2010).

2. Preparing a bid

The best general guidance in preparing a bid may be found in the following summary: the bid document has to have two properties, namely,

- an existence proof (or at least a good sketch of one) that the inviting consortium can actually manage all aspects of the Congress;
- features that make the Executive Committee (EC) of IMU think that the present bid is not only feasible, but also better than other potential bids.

Of course, there is no unique measure of quality of a bid. Every bid will have various facets, it should point out particular highlights but also address honestly potential weakness or difficulties. Every ICM site selection committee consists of experienced mathematicians who will be able to judge and balance the weak and strong points of a bid.

The document submitted should thus address aspects such as the following ones.

Inviting bodies

The bid should define the set of inviting bodies, i.e., those who submit the bid. In most cases this set consists of a coalition of bodies (like learned societies, associations, academies, universities, official national or provincial authorities). This aspect is to ensure that the invitation has sufficiently broad support in the proposed host country and that all major parties concerned with mathematical research stand behind the bid. Also of importance is the actual involvement of the local mathematical community of the particular city/region where the ICM is supposed to take place, so as to create a nice ambiance around and during the meeting.

¹. Endorsed by the IMU General Assembly on August 10, 2014. Amended by the IMU Executive Committee on July 10, 2015.



Scientific infrastructure

The bid document should present the scientific infrastructure in the bidding country that will be supporting the Congress. This is to demonstrate the presence of a sufficiently large group of mathematicians in the country to provide national backup of the scientific program. In particular, the bid document should clarify whether there is a substantial core of mathematical researchers in the country with experience in international meetings and provide convincing reasons why the ICM should be hosted in this country; up-to-date details about universities, research centers and the state of the mathematical research in the country are welcome. The involvement of volunteers at an ICM is an important issue from two points of view: Are young students of mathematics involved and is relevant help for the organization provided? Therefore, the bid should show the capacity to attract over 300 volunteers from the region where the ICM takes place.

Venues

The bid should indicate possible venues (concentration on one is preferred) within the country (city and institutions in which the Congress would take place), describing their advantages and disadvantages in relative terms. This includes a presentation of the technical congress facilities:

- Auditorium for the plenary lectures
- Rooms for the parallel sessions
- Congress office
- Speakers' ready room
- Internet corner/availability of WiFi
- Registration space
- Exhibition space
- Poster area
- Space for informal discussions of small groups of participants
- Catering areas for coffee breaks/light lunches.

Accommodation and transportation

The bid should indicate the variety of local accommodation facilities, ranging from inexpensive student residence type accommodation to high-class international hotels, for approximately 3,500-4,000 rooms, 3 to 5 stars. Closest metro/bus/train stations should also be included. Aspects of transportation to the site as well as on the site are extremely important.

The bid document should address other local concerns, such as the security of participants, city/country accessibility, climate, and cultural and recreational attractions.

Visa restrictions

Visa restrictions have always been an important concern. Therefore, the potential organizers should establish some connections with the appropriate authorities in order to facilitate the entrance of the participants in the host country. IMU expects that no mathematician willing to participate in an ICM be denied access to the host country to attend the Congress.

Logistic infrastructure

The bid document submitted should outline the logistic infrastructure of the Congress in order to demonstrate that a sufficiently advanced, varied, and capable organization system is in place to deal with all matters pertinent to the local organization of a multi-faceted and complex Congress of about 4,000 participants.

The bid should indicate details about the two main social events during the Congress:



ICM Bidding Guidelines

- Opening Ceremony for approx. 4,000-4,500 participants
- Social dinner/banquet for approx. 3,000 participants.

Insurance

The organizer's bid should provide for an insurance that covers incidents at the venues involving participants at the ICM and the General Assembly as well as staff and volunteers. Participants at the ICM and the General Assembly should be required upon registration to tick-off that they have valid travel and health insurance for the participation at the ICM and the General Assembly.

Outreach activities (public lectures, exhibitions)

Issues such as outreach activities (public lectures, exhibitions) and press coverage should be contemplated in the proposal.

Proceedings

The bid should describe the arrangements for the proceedings (paper, electronic, or both). IMU asks that a paper version be produced for the libraries. An electronic copy should be made freely available to the IMU to be posted on its web site for free access. The IMU should be a copyright holder of the proceedings. All video material from the ICM should be made freely available to the IMU for free use. Photos of all prizewinners should be made freely available for the IMU, and with IMU as a copyright holder. It is required that bidders and eventually the organizers ensure that all images and video material used for publicity do not infringe copyrights.

Satellite conferences

The organization of satellite conferences on special mathematical topics in various places of the host country and neighboring countries became an ICM tradition. No satellite conference should overlap with the ICM. This ensures the involvement of a large regional mathematical community. Adequate measures should be taken to encourage participants at the satellite conferences also to participate at the ICM.

General Assembly

Arrangements for a two-day meeting of the General Assembly (GA) prior to the ICM, possibly, but not necessarily, in the city where the ICM is being held, should be included in the bid. In particular, a budget plan, local arrangements and transport of the GA participants between the GA and the ICM venues should be provided.

Financial infrastructure

The bid should describe the financial infrastructure of the Congress, indicating the size of the funds that are expected to be available to the Congress and listing the organizations, institutions, and bodies in the bidding country that are ready - or may be expected - to support the Congress in terms of money, services, equipment, or manpower. The bid should also address the specific issue of possible support to participants from the developing world as well as the expected level of registration fees for congress participants.

Clearly, costs vary considerably from country to country. However, according to the reports of the latest ICMs, a potential host country may consider a budget of about 2 million US dollars (figures as of 2014), of which about 0.5–0.6 million US dollars might be raised through registration fees (such fees should be in the range of 300-400 US dollars). Again, these numbers may go up or down according to local costs and facilities as well as in-kind contributions. In considering the budget, printing costs of the proceedings and other material (posters, announcements, summary of invited lectures, etc.) as well as mailing deserve special attention.



ICM Bidding Guidelines

The host country should be prepared to provide free lodging to about 120 young research mathematicians from developing countries, selected by IMU; they get their travel expenses paid by IMU through its Special Development Fund. Also, in special cases, invited speakers are expected to receive some financial support for attending the meeting when other funds to cover their expenses are not available. Registration fees are waived for invited speakers and the above young research mathematicians from developing countries. On the other hand, it is to be noted that there is an IMU subvention to the ICM as well as some provision in IMU's budget to defray costs of the General Assembly meeting that takes place just before the Congress.

3. Selection procedure

All countries interested in making a bid to host an ICM are strongly encouraged to do so.

Requests for further information about the preparation of a bid should be addressed at any time to the IMU Secretary.

Countries considering submitting a bid to host an ICM should be aware of the following procedure and the corresponding deadlines (see also item 4. Tables):

- To be considered by the Site Selection Committee (SSC), these bids must be received by the IMU Secretary (Email: secretary@mathunion.org) by November 30, Year -6 before the ICM. Only electronic bids are eligible. In exceptional cases the General Assembly may consider bids placed after November 30, Year -6, but the IMU EC views it most advisable that the IMU Adhering Organizations comply with the regular procedure.
- The IMU EC nominates a Site Selection Committee consisting of the members of the IMU Executive Committee and the President of the Local Organizing Committee of the previous ICM.
- The Site Selection Committee appoints a Site Visiting Committee (SVC) that visits all sites.
- Site recommendations are made before the IMU EC meeting in Year -5 of the ICM. The SVC can give feedback to bidders if found useful so that the bidders have the chance to improve their bid.
- The SSC, after all bidding institutions have reacted to the feedback remarks/questions, finalizes its recommendations. The IMU Secretary communicates these recommendations to the IMU Adhering Organizations.
- The final decision is taken by the General Assembly to be held in Year -4.
- After the decision by the General Assembly no substantial changes should be made to the arrangements described in the successful bid documents without explicit prior approval of the IMU Executive Committee.

More details about the organization of an ICM, and in particular, about the interface between the local organizing committee and the Program Committee can be found in the PC/OC Guidelines (www.mathunion.org/activities/icm). Similarly, the GA Guidelines (www.mathunion.org/organization/general-assembly/) describe details of the organization of a meeting of the General Assembly.

4. Tables

4.1. Table I: Example timeline (exact dates are negotiable)

August 15, year Y	ICM Opening Ceremony
August 12-13, Y	Meeting of the IMU General Assembly



ICM Bidding Guidelines

November 30, Y-6	Deadline for bids for ICM Y
January-April, Y-5	Site visits of SVC
May, Y-5	IMU EC preselects ICM Y site
August 13, Y-4	IMU GA decides on ICM Y site

4.2. Table II: Format (roughly) of past ICMs

(Day = Day of the ICM Opening Ceremony)

Day -1	Rehearsal of the Opening Ceremony with the prizes winners
Day 1	Opening Ceremony (IMU prizes), up to 4,000-4,500 persons capacity auditorium
Day 5	Free
Day 9	Closing Ceremony
Expected participants	4,000 persons
Budget	<ul style="list-style-type: none"> - ~ 2,000,000 US dollars - Subvention from IMU: ~ 90,000 US dollars
Plenary speakers (60 min lectures)	~ 20 persons
Invited speakers (45 min lectures)	<ul style="list-style-type: none"> - at most 180 persons, between 3 and 14 invited lectures in each session - up to 10 invited lectures in parallel - rooms for invited lectures for at least 300 persons each
Short Communications and posters	<ul style="list-style-type: none"> - Are associated to the sessions, may be in parallel (between 15 and 30 in each session) - Each room for Communications to hold at least 40 persons
Satellite conferences	<ul style="list-style-type: none"> - 51 conferences at ICM 2014 - 32 conferences at ICM 2010 - 64 conferences at ICM 2006
Proceedings, paper copy for the libraries Multimedia material	<ul style="list-style-type: none"> - one volume with the plenary lectures: around 800 pages - two or three volumes with the invited lectures: around 3000 pages altogether - one (optional in paper copy form) volume with the Communications: 400-500 pages - Electronic versions of the Proceedings and all Multimedia material available for the IMU
General Assembly	<ul style="list-style-type: none"> - Expected participants: 200 persons - Budget: ~ 180,000 US dollars - Contribution from IMU: ~ 18,000 US dollars

The IMU Executive Committee is entitled to amend the ICM Bidding Guidelines when necessary.