



## 1. Introduction

The ICMs are among 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 structure of the ICM is determined by the Structure Committee, the invited speakers at the Congress are carefully selected by a 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 IMU Abacus Medal<sup>2</sup> (since 1982), 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).

Prior to the ICM, the IMU hosts a two-day meeting of its General Assembly (GA), which is the governing body of the IMU. There is a free day between the GA and the opening of the ICM. The bid should include both the GA and the ICM.

## 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.

### 2.1 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

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<sup>1</sup> The IMU Executive Committee is entitled to amend the ICM Bidding Guidelines when necessary.

<sup>2</sup> Previously called the Rolf Nevanlinna Prize.

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.

## **2.2 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.

## **2.3 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' preparation room
- Internet corner
- Free and fast WLAN throughout the venue for all participants
- It is advised that the program is distributed to participants on an app, and that this app is updated daily. The program should also be displayed on screens throughout the venue
- Registration space
- Exhibition space
- Poster area
- Space for informal discussions of small groups of participants
- Catering areas for coffee breaks/light lunches.

## **2.4 Access to Internet**

It is important that the organizers can guarantee free and unrestricted access to Internet during the ICM and the General Assembly. This requirement should specifically be addressed in the bid.

## **2.5 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.

## **2.6 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. The organizers should offer safe environment to all participants irrespective of ethnic background, religious beliefs, and sexual orientation.

## **2.7 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:

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

## **2.8 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.

## **2.9 Outreach activities (public lectures, exhibitions)**

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

## **2.10 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 own all rights for the proceedings. All video material from the ICM should be made freely available to the IMU for free and unrestricted use. Photos of all prizewinners should be made freely available for the IMU, and with IMU retaining all rights. It is required that bidders and eventually the organizers ensure that all images and video material used for publicity do not infringe copyrights. Each article as well as the volumes themselves should be equipped with a Digital Object Identifier (DOI).

## **2.11 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.

## **2.12 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. Irrespective of where the GA is organized, there should be one free day between the GA and the opening of the ICM. The GA is a rather

technically demanding event, and it is advised to study carefully the GA Guidelines, and, in particular, the technical requirements prior to making a bid. These requirements should be addressed specifically in the bid.

### **2.13 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<sup>3</sup> EUR 6 million, of which about EUR 0.8 million might be raised through registration fees (such fees should be in the range of USD 300–400), and about EUR 100,000 from renting of booths. 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. The budgets may show considerable variation depending on the conditions of the host country. It is asked that the budget is made robust with regard to the number of participants.

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. It is expected that some funds are offered to support senior mathematicians from developing countries. For all grantees it is expected that the registration fees are waived or the grant is increased comparably. 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. Further sharing of expenses between the IMU and the host country should be discussed.

### **2.14 External sponsoring**

The IMU recognizes that there may be a wish to allow commercial sponsors as part of the financing of the ICM. Currently, there is an increased global focus on the ethical standards of companies and foundations. The IMU is very concerned about potential sponsors that could affect the ethical reputation of our community, and the IMU asks that external sponsors be scrutinized carefully before any contracts are signed.

Commercial sponsors should not be part of the official program of the ICM, i.e., the Opening and Closing Ceremony, plenary and invited lectures, and IMU sponsored panel discussions. However, the sponsors may be mentioned during the Closing Ceremony. Outside the official program of the ICM, commercial sponsors and their material are welcome, provided they uphold the ethical standards mentioned above. Commercial material should not be displayed or distributed during the official program, and should not appear on par with the IMU and ICM logos.

## **3. Selection procedure**

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<sup>3</sup> Figures from the 2018 ICM.

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 General.

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 General (Email: [secretary@mathunion.org](mailto:secretary@mathunion.org)) by November 30, Year -5 before the ICM. Only electronic bids are eligible.
- For an application to be valid, the organizers have to include a statement that they abide by Article 7 regarding the Principle of Freedom and Responsibility in Science in the [ISC Statutes and Rules of 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 by the IMU EC are made in Year -4 of the ICM. The SVC can give feedback to bidders in order that the bidders have the chance to improve their bid. Improved bids should be received no later than one month after the site visit.
- The SSC, after all bidding institutions have reacted to the feedback remarks/questions, finalizes its recommendations. The IMU Secretary General communicates these recommendations to the IMU Adhering Organizations.
- The final decision is taken by the General Assembly to be held in Year -4.
- The IMU has secured the domain name [icm2026.org](http://icm2026.org) that will be made available to the host and must be used for the Congress when it is awarded.
- In all material, including posters, it should be clearly stated that the ICM is organized under the auspices of the International Mathematical Union, and the IMU logo should be displayed.
- 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. An agreement of understanding will be signed between the local organizers and the IMU.

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<sup>4</sup>. Similarly, the GA Guidelines<sup>5</sup> describe the details of the organization of a meeting of the General Assembly.

## 4. Tables

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

|   |  |
|---|--|
| August, year <b>Y-7</b>                   | Official call to the AOs for bids for the ICM in year <b>Y</b> |
| November 30, <b>Y-5</b>                   | Deadline for submitting bids for ICM <b>Y</b>                  |
| December <b>Y-5</b> – January, <b>Y-4</b> | Site visits of SVC   |
| February, <b>Y-4</b>                      | Deadline for amended bids                                      |
| May, <b>Y-4</b>                           | IMU EC preselects ICM <b>Y</b> site                            |

<sup>4</sup> [www.mathunion.org/activities/icm](http://www.mathunion.org/activities/icm)

<sup>5</sup> [www.mathunion.org/organization/general-assembly/](http://www.mathunion.org/organization/general-assembly/)

|                              |  |
|------------------------------|--|
| August 12-13, <b>Y-4</b>     | Meeting of the IMU General Assembly                          |
| August 13, <b>Y-4</b>        | IMU GA decides on ICM <b>Y</b> site                          |
| August 14, <b>Y-4</b>        | Free day between IMU GA and the ICM <b>Y-4</b>               |
| August 15, year <b>Y-4</b>   | ICM <b>Y-4</b> Opening Ceremony                              |
| December 31, year <b>Y-4</b> | Signing of agreement of understanding between IMU EC and LOC |

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

(Day 1 = Day of the ICM Opening Ceremony)

|  |  |
|--|--|
| Day -1   | Rehearsal of the Opening Ceremony with the winners of the IMU prizes   |
| Day 1  | Opening Ceremony (incl. 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"> <li>– About 6 mill EUR</li> <li>– Subvention from IMU: about 90 kEUR</li> </ul>   |
| Plenary speakers (60 min lectures)                               | ~ 20 persons <sup>6</sup>  |
| Invited speakers (45 min lectures)                               | <ul style="list-style-type: none"> <li>– At most 180 persons<sup>7</sup>, between 3 and 14 invited lectures in each session</li> <li>– Up to 10 invited lectures in parallel</li> <li>– Rooms for invited lectures for at least 300 persons each</li> </ul>  |
| Short Communications and posters                                 | <ul style="list-style-type: none"> <li>– Are associated to the sessions, may be in parallel (between 15 and 30 in each session)</li> <li>– Each room for Communications to hold at least 40 persons</li> </ul>   |
| Satellite conferences  | <ul style="list-style-type: none"> <li>– 45 conferences at ICM 2018</li> <li>– 51 conferences at ICM 2014</li> <li>– 32 conferences at ICM 2010</li> <li>– 64 conferences at ICM 2006</li> </ul>   |
| Proceedings, paper copy for the libraries<br>Multimedia material | <ul style="list-style-type: none"> <li>– One volume with the plenary lectures: around 800 pages</li> <li>– Two or three volumes with the invited lectures: around 3,000 pages altogether</li> <li>– One (optional in paper copy form) volume with the Communications: 400-500 pages</li> <li>– Electronic versions of the Proceedings and all Multimedia material available for the IMU</li> </ul> |
| General Assembly   | <ul style="list-style-type: none"> <li>– Expected participants: 220 persons</li> <li>– Budget: about 300 kEUR</li> <li>– Contribution from IMU: about 20 kEUR</li> </ul>   |

<sup>6</sup> Minor changes may occur.

<sup>7</sup> Minor changes may occur.