



INTERNATIONAL MATHEMATICAL UNION (IMU):
INFORMATION ABOUT
IMU'S ACTIVITIES AND THE APPLICATION PROCESS FOR
IMU MEMBERSHIP AND IMU ASSOCIATE MEMBERSHIP

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1. General Information about the IMU

Detailed Information about the International Mathematical Union and its activities can be found at IMU's web site¹. Here is a short summary of what IMU does and an applying country can benefit from. In a nutshell:

IMU is an international non-governmental and non-profit scientific organization, with the purpose of promoting international cooperation in mathematics. It is a member of the International Science Council (ISC), which is an umbrella organization for scientific unions and national science foundations.

Briefly, the objectives of IMU are:

- To promote international cooperation in mathematics.
- To support and assist the International Congress of Mathematicians (ICMs) and other international scientific meetings or conferences.
- To encourage and support other international mathematical activities considered likely to contribute to the development of mathematical science in any of its aspects, pure, applied, or educational.
- A special focus is the support of the development of mathematical research and education in the developing countries, by help training of highly qualified personal, networking and capacity building, both in education and research.

IMU is responsible for the organization of the International Congresses of Mathematicians, which are held every four years and which, since 1897, play an important role in the development of mathematics and the celebration of the major achievements in the mathematical sciences around the world. The most important mathematical prizes (Fields

¹ See <https://www.mathunion.org/>



Medal, Nevanlinna Prize, Gauss Prize, Chern Medal Award, Leelavati Prize) are awarded at the ICM Opening Ceremony.

IMU's sub-organization **Commission for Developing Countries (CDC)** supports mathematics in developing countries through a wide range of projects, including a Conference support program, the Volunteer Lecturer Program, the Abel Visiting Scholar Program, IMU-Simons Foundation Travel Fellowships, travel grants to attend the ICMs, a Mathematical Libraries Assistance Scheme. The CDC is regularly releasing reports on the current state of a developing region of the world and on opportunities for new initiatives to support their mathematical development. Details can be found on the CDC web page².

IMU engages in mathematics education via the **International Commission on Mathematical Instruction (ICMI)**, see their web site³, whose goal is to foster efforts to improve the quality of mathematics teaching and learning worldwide. ICMI fulfils its mission through a variety of publications, the organization of small special purpose conferences or the quadrennial International Congress on Mathematical Education (ICME). A new initiative is the Capacity & Networking Project (CANP) aiming to enhance mathematics education at all levels in developing countries, e.g., by creating sustained and effective regional networks of teachers, mathematics educators and mathematicians and linking them to international support.

IMU engages in electronic information and communication through its **Committee on Electronic Information and Communication (CEIC)**, see their web site⁴, which regularly produces "best practices recommendations" on a variety of publication and communication aspects. The CEIC is involved in a coordinated effort to digitize the past mathematical literature in order to make it available online and thus, in the long run, building the World Digital Mathematical Library.

IMU is governed by an Executive Committee (EC) that is elected every four years by the IMU General Assembly (GA) which consists of all ordinary members (associate members have no voting rights). The GA usually determines, for the forthcoming period of four years, the tasks to be performed by the EC. All this is regulated in the IMU Statutes⁵ which also describe IMU membership in detail.

IMU engages in the history of mathematics through its **International Commission on the History of Mathematics (ICHM)**, see their web site⁶.

² See <https://www.mathunion.org/cdc/>

³ See <https://www.mathunion.org/icmi/>

⁴ See <https://www.mathunion.org/ceic/>

⁵ See <https://www.mathunion.org/fileadmin/IMU/Statutes2006.pdf>

⁶ See <https://www.mathunion.org/ichm>



The ICHM is an inter-union commission joining the IMU and the Division of the History of Science (DHS) of the International Union for the History and Philosophy of Science (IUHPS). The IMU appoints two members to the ICHM by election at the General Assembly.

The most recent committee of the IMU is the **Committee for Women in Mathematics (CWM)**, see their web page⁷. The CWM is concerned with issues related to women in mathematics worldwide. In particular, its aim is to propose, encourage and facilitate activities of the IMU or other bodies which would tend to increase the visibility of women in mathematics and lead to an increase in their representation in the community at all levels and in all parts of the world. Furthermore, its goal is to promote international contacts between national and regional organisations for women in mathematics, in particular facilitating the building of networks at the regional or continental level.

2. IMU membership/associate membership

There is no application form or the like. The IMU EC just would like a country to report faithfully about the state of its mathematics in a way that the IMU members get a clear picture and have a sound basis for their vote.

A description of what the IMU EC would like to know is enclosed below. To see what other countries applying for membership or associate membership or for a group upgrade have delivered, please see the Circular Letters⁸ sent the IMU Adhering Organizations.

Associate IMU members pay no dues and have no voting rights. The current IMU dues structure can be found on the IMU web page⁹.

Please send all communication concerning your application to the IMU Secretary General (secretary@mathunion.org). Do not hesitate to ask questions. Your application will be reviewed by the IMU EC and then sent with the EC's recommendation to all IMU members for formal vote.

3. How to apply for IMU membership

The International Mathematical Union intends to be as non-bureaucratic as possible, and the IMU Executive Committee (EC) will handle every Membership and Associate Membership application in a very flexible way.

⁷ See <https://www.mathunion.org/cwm>

⁸ See <https://www.mathunion.org/membership/circular-letters-adhering-organizations>

⁹ See <https://www.mathunion.org/membership/membership-dues>



Nevertheless, the IMU members request that countries applying for (Associate) Membership provide supporting material.

Whenever a country applies for Membership (or Associate Membership), the country is requested to report about the state of mathematics in its country. What the IMU EC asks for is an overview over the state of mathematics which includes some statistics and comments about the research activities throughout the country applying. What countries have typically submitted in previous cases is, in addition to a general outline (of two pages or so) in descriptive form, statistical material such as:

- the number of universities in the country where mathematics is taught,
- the list of universities with significant research activities in mathematics,
- the (estimated) number of professors in mathematics in the country,
- the (estimated) number of research mathematicians in the country,
- the list of mathematical societies in the country and the number of their members,
- a list of mathematicians whom the country considers well-known in the world-wide mathematical community,
- an estimation of the number of mathematical publications that have been produced by mathematicians living in the country and that have appeared in respected mathematical journals in the recent years,
- a list of the names of the mathematical journals published in the country,
- a brief overview of educational activities,
- whatever a country considers important for the application.

This is a long list, and not every country applying can easily produce such documents, in particular in the case of application for Associate Membership. But be assured that the IMU EC is determined to help every applicant to become an IMU Member, even if only for a small fraction of items of the list above, reasonable indicators can be reported.

Please review the outline of indicators of mathematical activity listed above, check which of the figures and lists you can produce without undue effort. The IMU Secretary General will be happy to discuss with you a preliminary form of application, where you outline what you can deliver and what appears too difficult to obtain.

Please do not hesitate to contact the IMU Secretary General so that an application can be worked out that satisfies the standards the IMU EC has in mind and that increases the chance of a positive vote by the IMU members.

Please note that the IMU Executive Committee does not decide on an application. The IMU EC just reviews a proposal and formulates a recommendation. Every application together with the recommendation of the EC will be sent to all IMU Members for a vote.

Please do not forget to read the sections of the IMU statutes concerning Membership and Associate Membership:

II. Membership, articles 3–6.



III. Associate Membership, articles 7–12.

The statutes are on the IMU web page¹⁰.

Please make yourself acquainted with these formalities.

And please recall that the IMU members are countries. It may be necessary to contact – before an application is made – a governmental institution (e.g., the ministry of education and science, the ministry of foreign affairs) that, within the country, is responsible for such memberships. IMU assumes that when such an application is made the National Mathematical Society (or the National Academy of Science) has discussed the application with official representatives of the country and applies for IMU Membership or IMU Associate Membership as the future Adhering Organization. If there is more than one Mathematical Society in a country it may be wise to discuss the plan with all these before an application is made.

Final remark

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

¹⁰ See <https://www.mathunion.org/organization/statutes>