

IMU-Net 92: November 2018

A Bimonthly Email Newsletter from the International Mathematical Union

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1. EDITORIAL: ESTABLISHMENT OF AN ICM STRUCTURE COMMITTEE

At the 2014 IMU General Assembly in Gyeongju, South Korea, a motion from the floor urged that ICM programs should strive to keep up with developments, scientific, geographic and demographic, and that the Executive Committee should take measures to ensure that future ICM programs achieve an acceptable balance between recently emergent themes and important developments in classical mathematics. After a detailed discussion the following [Resolution](#) was passed:

Resolution 6. *The General Assembly requests that the Executive Committee review the instructions given to the ICM Program Committees concerning the following goals:*

- 1) *to achieve gender and geographical balance among plenary and sectional speakers;*
- 2) *to ensure that the structure of the program reflects the current state and development of all mathematical areas.*

The IMU General Assembly asks that each ICM Program Committee present an interim report to the EC about issue 2) at the time it has a proposal for the structure of the program and for the division into "sections", and that the final report of the Program Committee to the EC about their work specifically address both issues 1) and 2).

Until that Resolution the remit of the ICM Programme Committee had been to survey the international mathematical research landscape in order to decide the structure for which it would appoint its sectional committees. Since this was already difficult because of the challenging timetable involved, the Executive Committee considered various options for its response to Resolution 6. Finally, at its 2018 meeting in Montreal it decided to ask the 2018 IMU General Assembly in São Paulo for authority to establish a new Structure Committee tasked with deciding the sections of the ICM, prior to the work of the Program Committee. This Structure Committee should be composed of scientifically top-notch people while avoiding conflicts of interest and its membership should be published on the web. The Structure Committee should be set up in time to allow for its membership to be announced at the IMU General Assembly at which its chair would make a presentation. The São Paulo IMU General Assembly discussed this suggestion and passed the following [resolution](#) with a large majority:

Resolution 12

1. *The General Assembly endorses the creation of the ICM Structure Committee with terms of reference as described in the Guidelines for the ICM Structure Committee.*
2. *The General Assembly endorses the changes in the PC/OC Guidelines.*
3. *The Executive Committee is authorized to edit the Guidelines for the ICM Structure Committee and the PC/OC Guidelines based on the discussion at the General Assembly.*

With that authority from the IMU General Assembly, the new Executive Committee will now work to establish the Structure Committee as envisaged above and governed by guidelines that will be aligned with those of Program and Organising Committees of future ICMs.

John Toland (Executive Committee member 2011 - 2018)

2. CEIC: NOTES AND COMMENTS

Further Developments in Open Access

On 4 September 2018, a grouping of the European Commission and national research funders in Austria, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Slovenia, Sweden and the UK, known as cOAlition-S, announced they will implement what they call “Plan-S”. The headline announcement is this:

“After 1 January 2020 scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms.”

This agrees with IMU’s 2001 call to make all publications available:

[https://www.mathunion.org/fileadmin/CEIC/Publications/Call to All Mathematicians to Make Publications Electronically Available.pdf](https://www.mathunion.org/fileadmin/CEIC/Publications/Call%20to%20All%20Mathematicians%20to%20Make%20Publications%20Electronically%20Available.pdf).

The full declaration and elaboration of “compliant” is at <https://www.scienceeurope.org/coalition-s/>.

The first key point is this:

- Authors retain copyright of their publication with no restrictions. All publications must be published under an open license, preferably the Creative Commons Attribution Licence CC BY. In all cases, the license applied should fulfil the requirements defined by the Berlin Declaration.

This would permit authors to make available the LaTeX source of their papers, as requested in Giroux’s eloquent “Plea to publishers and authors: Please help blind Mathematicians” (*EMS Newsletter* **79**(2011) p. 16): <https://www.ems-ph.org/journals/newsletter/pdf/2011-03-79.pdf>

However, the devil will be in the details, and we must hope (and contribute to ensuring) that:

1. We don’t lose the current benefits of [arXiv](https://arxiv.org/) (noting that the mathematical use of arXiv, with frequent revisions before final publication, isn’t typical);
2. International collaboration does not become harder, or the world segmented into regions with different publishing models;
3. In particular, that our colleagues in less well-off countries do not suffer from such a switch of publishing models. The Coalition-S statement says “Where applicable, Open Access publication fees are covered by the Funders or universities, not by individual researchers; it is acknowledged that all

scientists should be able to publish their work Open Access even if their institutions have limited means;”, but there are no stated mechanisms for ensuring this. Apparently about a “half of academics in Africa ‘receive no research funding’”

[<https://www.timeshighereducation.com/news/half-academics-africa-receive-no-research-funding>], and the fact that Elsevier have been appointed as the monitors does not fill people with confidence [<https://www.theguardian.com/science/political-science/2018/jun/29/elsevier-are-corrupting-open-science-in-europe>].

3. COMMITTEE ON DEVELOPING COUNTRIES (CDC): 2019 DEADLINES

Abel Visiting Scholar Program. This program, funded by the Niels Henrik Abel Board (Norway), supports young mathematicians professionally based in developing countries to visit an international research collaborator for a period of one month. Deadlines:

December 31, 2018 for visits between May 1 and August 31, 2019.

April 1, 2019 for visits between September 1 and December 31, 2019.

August 31, 2019 for visits between January 1 and April 30, 2020.

IMU-Simons African Fellowship Program. This program, funded by the Simons Foundation (USA), supports mathematicians from African developing countries employed in Africa to visit an internationally known mathematical centre (university) of excellence for a limited research period. Deadlines:

January 15, 2019 for visits starting after May 1, 2019.

April 15, 2019 for visits starting after August 1, 2019.

July 15, 2019 for visits starting after November 1, 2019.

October 1, 2019 for visits starting after January 15, 2020.

Individual Research Travel Support Program. This program supports travel costs for invited research visits for a period of four weeks by mathematicians based in developing countries. The host institution must cover local living expenses like accommodation and boarding. The deadlines are the same as for the IMU-Simons African Fellowship Program above.

Conference Support Program. This program gives partial support to Mathematical Science based conferences organized in developing countries. The funds are for travel and accommodation only. The conference organizers must send the application form at least four months in advance. Deadlines:

January 15, 2019 for conferences starting after May 15, 2019.

April 15, 2019 for conferences starting after August 15, 2019.

July 15, 2019 for conferences starting after November 15, 2019.

October 1, 2019 for conferences starting after February 1, 2020.

Volunteer Lecture Program. This program is partially funded by the American Mathematical Society through Friends of IMU (USA). Universities in a developing country, with a mathematics degree programs that are in need of and interested to host a lecturer for intensive 3-4 weeks mathematics courses, at the advanced undergraduate or master level, can apply to obtain complete support for the visit of a volunteer lecturer. Deadlines:

March 1, 2019 for lectures between July 1, 2019 and July 1, 2021.

June 1, 2019 for lectures between October 1, 2019 and October 1, 2021.

September 1, 2019 for lectures between January 1, 2020 and January 1, 2022.

December 1, 2019 for lectures between April 1, 2020 and April 1, 2022.

Graduate Assistantships in Developing Countries. The Program provides research assistantships to graduate – PhD and Master – students of emerging research groups working in a developing country listed in Priority 1 or 2 of the IMU CDC Definition of Developing Countries. It provides modest support for emerging research groups, making it possible for them to fund their most talented students as graduate research assistants, thereby fostering the growth of a mathematics community. It is assumed that the emerging research group has an ongoing collaboration with an international mathematician. The next deadline is March 15th, 2019.

Funding is provided through Friends of IMU (USA) by donations from mathematicians or mathematical institutions worldwide. Mathematicians wishing to donate to GRAID can do so via the FIMU website <http://friends-imu.org/donate/#graid>

The deadlines for applications to the rest of the programs will be announced in this Newsletter in due time. For more information, please visit our website <http://www.mathunion.org/cdc>

Olga Gil-Medrano (IMU-CDC Secretary for Policy)

4. TWO INITIATIVES FROM IMU COMMITTEE FOR WOMEN IN MATHEMATICS ([CWM](#))

a) Journeys of Women in Mathematics

"Journeys of Women in Mathematics" is a 20 minutes film created by CWM, filmed and edited by Micro-Documentaries and made possible by a grant from the Simons Foundation. The World Premiere of the first part of the film took place in Rio during (WM)², the World Meeting for Women in Mathematics.

The film brings together and documents both the successes and barriers for women in mathematics from an international perspective, told in the words of the women themselves. It profiles women mathematicians from around the world, speaking about their research, the mathematical aspirations of women in their region, and how the international mathematics community could support these.

In the first part of the film Neela Nataraj from India, Aminatou Pecha from Cameroon and Carolina Araujo from Brazil are featured at their home institutions in their respective countries. The second part of the film was shot at (WM)² where Carolina, Neela and Amina attended. It shows the lively and diverse atmosphere of the event and contains short interviews of six women from various Latin American countries.

The film is now available on line here: <https://youtu.be/uNJ7riiPHOY>

b) Remember Maryam Mirzakhani

"Remember Maryam Mirzakhani" is an exhibition with 18 original A0 posters about Maryam Mirzakhani, curated by Thais Jordao and designed by Rafael Meireles Barroso.

The exhibition opened at the (WM)², the World Meeting for Women in Mathematics, and remained open during ICM 2018. Some pictures of the exhibition can be seen in the report summarizing the main activities at (WM)², to be found at

https://www.mathunion.org/fileadmin/CWM/Initiatives/short_report_wm2.pdf

Any institution interested in hosting the *Remember Maryam Mirzakhani Exhibition* must obtain the agreement of CWM. This is free of charge. However, a donation to CWM to support its activities for women in mathematics in developing countries is welcome. Once agreement is reached, CWM gives access to electronic files and the exhibition has to be printed by the host institution. All expenses incurred in connection with preparing and hosting the exhibition, including printing costs, are the responsibility of the host institution.

A detailed set of rules of use can be found at <https://www.mathunion.org/fileadmin/CWM/Initiatives/HostingRememberMaryamMirzakhani.pdf> If you are interested, please contact CWM at exhibition-cwm@mathunion.org with a letter describing the context of the exhibition, the location and the dates. There must be a designated person in charge whose name must be forwarded to and agreed by CWM.

To date, arrangements to host the exhibition have been made by the following-institutions: the Stanford Mathematics Department, the Fields Institute (Toronto), and the III Brazilian Congress of Young Research in Pure and Applied Mathematics and Statistics (III CBJME) in Brazil.

For more details concerning these two initiatives, see <https://www.mathunion.org/cwm/initiatives/cwm-initiatives> .

5. ICMI: ELECTION OF A NEW EXECUTIVE COMMITTEE

The International Commission on Mathematical Instruction ([ICMI](#)) launches the first two steps of the Process of Election of the ICMI Executive Committee (EC) for the 2021-2024 term in office:

Professor Michèle Artigue was appointed as the Chairperson of the Nominating Committee (NC) that is in charge of the composition of the slate that will be presented towards the election of the ICMI EC 2021-2024. ICMI representatives are invited to submit candidates for becoming members of the NC (one per country) via e-mail to the ICMI president <icmi.president@mathunion.org> from an official e-mail address of the AO/ICMI representative. **Deadline: December 1, 2018.**

Moreover, ICMI invites ICMI representatives to submit nominations for each of the ICMI EC positions: ICMI President, ICMI Secretary-General, ICMI Vice-Presidents (2), ICMI EC Members-at-Large (5).

Nominations for President and Secretary General must be received by **April 1, 2019**, and nominations for the other positions must be received by **June 1, 2019**. All nominations should be sent to Michèle Artigue <michele.artigue@univ-paris-diderot.fr>, Chair of the Nominating Committee, from an official e-mail address of the AO/ICMI representative.

Subsequently, the NC will form the slate to be presented towards the election of the next ICMI EC. This election will take place at the ICMI General Assembly, on July 11, 2020 in Shanghai - one day prior to the [ICME14](#).

For further details, please consult <https://www.mathunion.org/icmi/organizationicmi-executive-committee/nomination-members-icmi-ec-2021-2024> .

6. THE INTERNATIONAL DAY OF MATHEMATICS: NEWS, LOGO AND WEBSITE

News: The proposal that [UNESCO](#) proclaims March 14 (Pi Day) as the International Day of Mathematics (IDM) was on the agenda of the 2018 October meeting of the Executive Board of UNESCO. It has been proposed jointly by the Permanent Delegations at UNESCO of Albania, Bangladesh, Belarus, Brazil, Canada, Cuba, Dominican Republic, Egypt, France, Ghana, Grenada, India, Indonesia, Iran, Ivory Coast, Jamaica, Jordan, Lebanon, Mexico, Morocco, Nigeria, Pakistan, Paraguay, Philippines, Portugal, Russia, Saudi Arabia, Senegal, Serbia, Solomon Islands, Syria, Turkey, Saint-Lucia, Spain, Uruguay, Zambia and Zimbabwe.

At the 205th Session of the Executive Board of UNESCO (item 32),

"The Executive Board of UNESCO, ...

8. Acknowledging the driving role of the International Mathematical Union, in the conception of the International Day of Mathematics, as well as in the organization and mobilization of partners around this Day,

Decides:

(a) to welcome and endorse the recommendation to proclaim an "international day of mathematics", to be celebrated on 14 March every year;

(b) to invite the Director-General to support all efforts leading to the proclamation of an "international day of mathematics";

(c) to include this item in the agenda of the 40th session of the UNESCO General Conference;

(d) to recommend that the General Conference at its 40th session decide to proclaim 14 March of every year "international day of mathematics";

(e) encourages Member States, intergovernmental and non-governmental organizations, universities, research centres, civil society organizations, schools and other local actors involved to take active part in this event in the manner that each considers most appropriate without any financial implications for UNESCO's regular budget;

(f) to invite Member States to provide extra-budgetary funds to allow the Director-General to ensure the participation of UNESCO in the promotion and celebration of this Day."

Reminder about the Competition for the logo of the IDM: The deadline for submitting a proposal of logo for the IDM is **December 31, 2018**. The author of the winning logo will assign all rights to the logo to the IMU, as well as the permission for slight modifications. In return, the name of the winning author will appear on the IDM website. See [Competition for the IDM logo](#) for details.

Reminder about the Call for bids for hosting the IDM website: The IMU is inviting the Adhering Organizations to submit bids for the hosting of the IDM website, which will have the url www.idm314.org. The Adhering Organizations may decide to submit a bid or to pass the information to another organization in their country. **The deadline for this call is January 10, 2019**. See [Call for bids for the IDM website](#) for details.

7. BREAKTHROUGH PRIZE AWARDED TO VINCENT LAFFORGUE

The [2019 Breakthrough Prize in Mathematics](#) has been awarded to Vincent Lafforgue (CNRS and Institut Fourier, Université Grenoble Alpes, France) for "ground breaking contributions to several areas of mathematics, in particular to the Langlands program in the function field case".

Vincent Lafforgue joined the previous Breakthrough Prize Winners and made a generous donation to IMU to support the [IMU Breakout Graduate Fellowship Program](#). This program offers some grants for excellent students from developing countries.

8. VI LATIN AMERICAN CONGRESS OF MATHEMATICIANS

The VI Latin-American Congress of Mathematicians ([CLAM](#)) will take place in Montevideo, Uruguay, in the week July 20-24, 2020. This congress takes place every four years. Its aim is to foster the development of mathematical research in Latin America and the Caribbean, to make visible the mathematical outcome of the region, and to promote the professional partnerships among the mathematicians of the region and the rest of the world. At each congress, the [UMALCA](#) Prizes will be awarded to the most talented young mathematicians working in the region. The program will include public lectures, plenary and semi-plenary lectures, thematic sessions, and mini courses.

Members of UMALCA and the mathematical community of Latin America and the Caribbean are now [invited to submit proposals](#) for thematic sessions. A thematic session will focus on a specific area of mathematics and will consist of a maximum of eight lectures of 40 minutes each.

9. SUBSCRIBING TO IMU-NET

There are two ways of subscribing to IMU-Net:

1. Click on <http://www.mathunion.org/organization/IMU-Net> with a Web browser and go to the "Subscribe" button (at the bottom) to subscribe to IMU-Net online.
2. Send an e-mail to imu-net-request@mathunion.org with the Subject-line: Subject: subscribe

In both cases, you will receive an e-mail to confirm your subscription so that misuse will be minimized. IMU will not use the list of IMU-Net emails for any purpose other than sending IMU-Net, and will not make it available to others.

IMU-Net is the electronic newsletter of the International Mathematical Union.

More details about IMU-Net can be found at <http://www.mathunion.org/organization/imu-net/>.

You can find here, for instance, detailed information about subscribing to the IMU-Net mailing list and unsubscribing from it.
