

## IMU-Net 97: September 2019

A Bimonthly Email Newsletter from the International Mathematical Union

Editor: Martin Raussen, Aalborg University, Denmark

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#### 1. EDITORIAL: FUNDING OPPORTUNITIES FOR ICM PARTICIPANTS *Chebyshev and Kovalevskaya grants and satellites call*

The Local Organizing Committee (LOC) of ICM 2022 is seeking collaboration from all adhering organizations of the IMU, as well as international and national math societies, academies, scientific funding agencies on the following funding initiatives. These initiatives follow up on the plans presented in the St Petersburg ICM bid and, along with the visa-waiver for all registered participants, should contribute significantly to the success of the Congress and its satellite events. The funds will go towards vastly increasing the diversity of participants ensuring representation of the mathematical communities from all over the world and towards supporting satellites, which greatly enhance the participants' experience at the ICM.

The Russian mathematical community would like to welcome colleagues from every part of the globe. To help reach this goal, the Local Organizing Committee is announcing the **Chebyshev** grant, which will be available to mathematicians from developing countries to attend ICM. This grant will provide full support, that is, airfare and local expenses in St Petersburg, to 1000 participants from the developing countries. The application process and selection of candidates will be administered by the IMU Commission for Developing Countries (CDC). The mission and role of the CDC were the subject of the editorial in the previous issue of the IMU-net, see <https://www.mathunion.org/imu-net/archive/2019/imu-net-96>.

With a keen eye towards the future of mathematics, the **Kovalevskaya** grant will allow early career mathematicians to attend ICM, thereby increasing the ICM potential to encourage and inspire young researchers worldwide. This grant will provide local expenses in St Petersburg to 1300 early career mathematicians from Russia and the world. The LOC invites participation of the adhering organizations and funding agencies around the globe in the selection of the recipients of the Kovalevskaya grants. The home country organization will be expected to provide the nomination materials and adequate travel expenses from the home country to St Petersburg for each nominee, while the LOC and the Kovalevskaya grant will take care of the local logistics and expenses. Please contact the organizers at [funding@icm2022.org](mailto:funding@icm2022.org) for further details.

**Satellite events** complement the events of the ICM proper in many important ways, including developing and reinforcing the ties between foreign participants and mathematicians from the host country. To promote satellite events, the LOC is offering financial support to the satellites that take place in the Russian Federation in partnership with a local scientific or educational organization. The deadline for funding applications is **May 1, 2020** and the estimated support amount is up to 2,5 million rubles. The details of this funding opportunity may be found in the “Call for satellites”, published on the ICM 2022 website <https://icm2022.org/>.

This and various other useful information alongside some beautiful pictures of Saint-Petersburg can be found on the ICM website which has been up and running, providing updates on the plans and preparations for ICM 2022. Check the news blog of ICM 2022 <https://icm2022.org/blog> for updates on funding and other opportunities and subscribe to the ICM newsletter to receive information for all who are planning to take part in the activities of ICM 2022.

We are looking forward to working together with our colleagues worldwide to make the best use of these funding opportunities!

ICM 2022, Local Organizing Committee

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## 2. CEIC: NOTES AND COMMENTS

In a continuation of the “read and publish” trend discussed in the [May CEIC Notes](#), Project DEAL announced a deal with the publisher Springer Nature on behalf of 700 German research institutions and libraries:

<https://www.sciencemag.org/news/2019/08/more-700-german-research-institutions-strike-open-access-deal-springer-nature>

Under this deal, papers published by authors at institutions in Project DEAL will be open access, while those institutions will also receive a subscription to papers in these journals that are not freely available.

Meanwhile, [Coalition S](#) is growing. This is an initiative started by European funding agencies to push for a rapid change to immediate open access for funded research; it has caused some controversy, because it does little to accommodate society journals or hybrid open access publishing. In the most recent news, the World Health Organization has joined Coalition S:

<https://www.the-scientist.com/news-opinion/world-health-organization-backs-open-access-plan-s-66390>

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## 3. NEWS FROM THE CWM

The Committee for Women in Mathematics [CWM](#) is happy to announce the forthcoming publication of the book:

*World Women in Mathematics 2018 - Proceedings of the First World Meeting for Women in Mathematics (WM)*<sup>2</sup> (<https://www.springer.com/gp/book/9783030211691>),

The estimated publication date for the hardcover is December 21, 2019, with the eBook to follow on January 18, 2020.

The book was edited by CWM in coordination with the Association for Women in Mathematics (AWM), and has just been published by Springer, as part of their AWM Series.

The first part of the volume starts with a short report with pictures on the activities of the first World Meeting for Women in Mathematics - (WM)<sup>2</sup> - held in Rio de Janeiro on July 31, 2018, as a satellite event of ICM 2018. It includes a tribute to Maryam Mirzakhani. The report is followed by survey research papers from invited lecturers of the (WM)<sup>2</sup>: Monique Laurent, Alicia Dickenstein, Maria Eulália Vares and Maria J. Esteban. These articles provide panoramic views of different fields in pure and applied mathematics.

The second part of the volume documents the CWM panel discussion at ICM 2018, entitled "The gender gap in mathematical and natural sciences from a historical perspective", with articles from the panelists.

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#### 4. IMU-CDC GRADUATE SCHOLARSHIPS AWARDED

The corresponding Selection Committees have completed during the month of September the evaluation of the applications to [BGF](#) (Breakout Graduate Fellowships) and [GRAID](#) (Graduate Research Assistantships in Developing Countries) programs received for the 2019 calls. Three students have been awarded a BGF grant to complete their PhD: two of them, from Ukraine and Vietnam to study at their home country and one student from Nigeria to study in South Africa. A research team of Pakistan has been awarded a GRAID grant to support one PhD student and two MS students, and a team of Burkina Faso has received a grant to support one PhD student.

BGF grants are funded by the generous donations from all the [Breakthrough Prize winners](#) and GRAID program is funded thanks to kind donations from mathematicians or mathematical institutions worldwide. IMU-CDC very much appreciates all the donations that are welcome, via the Friends of IMU website <http://friends-imu.org/donate/#graid>.

The 2020 calls of both programs will be announced in due time.

More information in: <https://www.mathunion.org/cdc/scholarships/graduate-scholarships>  
See also the interesting article by Della Dumbaugh that appeared in the September Issue of the AMS Notices: <https://www.ams.org/journals/notices/201908/rnoti-p1294.pdf>

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#### 5. INSIDE THE IMU

##### **a. Report from the Structure Committee:**

The 2018 General Assembly decided to create an ICM Structure Committee (SC) charged with the task to propose the structure for the ICMS. Decisions regarding the actual speakers is left with the Program Committee (PC).

Terence Tao chaired the committee, whose membership is public. The SC has now finalized its [report](#). The IMU is very grateful to the members of the SC for their thorough job within the given tight timeframe.

The IMU Executive Committee (EC) has discussed the report and made the following decisions:

For the ICM 2022:

1. The EC endorses the proposal of creating:

(i) A new Section 17 (Statistics and Data Analysis) which replaces the old Section 17 (Mathematics in Science and Technology), and which incorporates the Statistics part of the old Section 12 (Probability and Statistics), which now becomes Section 12 (Probability).

(ii) A new Section 18 (Stochastic and Differential Modeling), which expands on aspects of the old Section 17 (Mathematics in Science and Technology).

The rationale for these changes is to start the process of enhancing the representation of applied mathematics in the ICM, and to keep up with recent groundbreaking developments in applied mathematics.

2. The EC endorses the given Sections with its descriptors and with the given base lecture slots.

3. The EC endorses the proposal to leave 20 sectional talks to the discretion of the PC, as described in the SC report.

4. The EC endorses the proposal to leave 2–3 plenary for “special plenary lectures” as described in the SC report.

5. The EC recommends that the opening ceremony is to be streamed, while the recording of other lectures should be made available later to the mathematical community by the organizers in a timely fashion. Videos are to be stored at the IMU Secretariat.

6. The EC asks that local organizers conduct an exit survey for ICM participants in order to guide subsequent SCs in their work.

For ICMs after 2022:

7. The EC asks that the SC proposes a dynamic mechanism on how the size of each Section can reflect the activity in the various subfields of mathematics. This mechanism can be applied for the ICM 2026.

#### **b. Call for bids for the ICM 2026**

The IMU Executive Committee (EC) cordially invites all Adhering Organizations and national mathematical societies in IMU members to submit bids for hosting the International Congress of Mathematicians in the year 2026 and the IMU General Assembly meeting prior to this Congress. Only electronic submissions are accepted. Submissions should be sent to [secretary@mathunion.org](mailto:secretary@mathunion.org). For a bid to be considered by the Site Selection Committee it must be received no later than **30 November 2021**.

The Site Selection Committee will evaluate all bids received, taking into account, but not restricted to, the mathematical ambience, the infrastructure and the economic conditions offered by each bidder, as well as the accessibility of the proposed site, the involvement of the local mathematical community, and the geographical distribution of places where ICMs took place in the past.

The IMU EC will prepare a recommendation based on the SSC's advice and refer this recommendation to the 19th IMU General Assembly (GA), which will take place in St. Petersburg, Russia, on 3–4 July 2022 prior to the ICM. The GA will make the final decision on the location of ICM 2026. Detailed information:

[https://www.mathunion.org/fileadmin/IMU/ICM/Guidelines/ICM\\_Bidding\\_Guidelines.pdf](https://www.mathunion.org/fileadmin/IMU/ICM/Guidelines/ICM_Bidding_Guidelines.pdf)

### c. Cyprus new member of the IMU

After a ballot among the adhering organizations, Cyprus was admitted as full member of the IMU in group I as of October 1, 2019.

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## 6. NEWS FROM THE INTERNATIONAL DAY OF MATHEMATICS (IDM)

1. You are invited to visit the website [www.idm314.org](http://www.idm314.org). A media page will very soon be online with logos in different languages and material for announcing the IDM. This material can be used to spread the news in your community.

2. We are preparing a world map that will appear on the website: the map will show dots where celebrations of IDM2020 are to take place. If you plan to organize an event we invite you to fill the following [form](#) so that we can insert a dot on the map as a pre-announcement of your event. You will be able to update the information later.

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## 7. MATHEMATICAL AWARDS

The [2020 Breakthrough Prize in Mathematics](#) has been awarded to **Prof. Alex Eskin**, University of Chicago, for “revolutionary discoveries in the dynamics and geometry of moduli spaces of Abelian differentials, including the proof of the “magic wand theorem” with Maryam Mirzakhani”.

Prof. **Luigi Ambrosio**, Scuola Normale Superiore di Pisa (Italy), has been awarded the [2019 Balzan Prize](#) for his “astonishing capacity for synthesis that has made possible to create hitherto unimaginable bridges between partial differential equations and the calculus of variations, aiming at finding optimal shapes”.

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## 8. SUBSCRIBING TO IMU-NET

There are two ways of subscribing to IMU-Net:

1. Click on <http://www.mathunion.org/organization/MU-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](mailto:imu-net-request@mathunion.org) with the Subject-line:  
Subject: subscribe

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and unsubscribing from it.

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