

IMU News 109: September 2021

A Bimonthly Email Newsletter from the International Mathematical Union

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1. EDITORIAL: THE 8TH EUROPEAN CONGRESS OF MATHEMATICS

The [8th European Congress of Mathematics](#) took place in the Grand Hotel Bernardin in Portorož, Slovenia, during 20-25 June 2021. It was organized by a team from the University of Primorska in Koper, led by [Klavdija Kutnar](#) and [Tomaž Pisanski](#), with participation of other institutions in Slovenia. The Congress was originally planned to be held in July 2020 but was postponed due to the Covid-19 pandemic. In view of the continuing uncertainty, the organizers decided in Spring 2021 to run it in hybrid mode.

The event attracted the biggest audience so far in the history of these congresses, with 1766 participants from 77 countries, about 200 of which came to the venue while the majority participated via the Zoom Webinar system at a reduced congress fee. The organizers hired the congress center of the hotel with lecture rooms of different sizes, supported by efficient internet. (Unfortunately, connectivity in hotel rooms was not sufficiently stable to follow the events.) Lecturers on the location were offered the possibility of lecturing live in front of an audience, with streaming via Zoom. Some lectures given remotely were also projected in an auditorium. Smaller events such as minisymposia mainly took place in online mode. Every lecture was monitored by a technical expert. To avoid disruption, especially during plenary and invited talks with large audiences, only the speaker and the session chair had the role of panelists during the talk. Participants could ask questions after the talk or type them in the Zoom system to be communicated by the session chair. In smaller settings such as minisymposia, all participants appeared as panelists, thereby enabling them to see each other. It was possible to reserve rooms for individual discussions. The [website](#) was well organized and helpful. Every participant received individualized access to the schedule with clear instructions on how to connect. Technical support was excellent. There were many accompanying activities and cultural events.

In my opinion, the event was very successful, the organization was seamless, and the organizers deserve to be highly commended for their effort, especially in light of the adverse circumstances. Having said that, I wish to add that the human dimension of a live event was largely missing. In my opinion, online events should not become standard. The organizers made every effort to encourage participants to come to the

venue, with poor success. There was indeed no convincing reason not to come, at least for vaccinated Europeans. The pandemic was in remission, and hotels arranged reasonable precautions. Indeed, the Adriatic coast was full of tourists during the entire summer; so, why not to come to the congress? The sentiment is that warnings and restrictions imposed by governments and university administrators played a role. One is led to wonder whether governments and their advisers do not believe their narratives on the efficacy of vaccines. It is being demonstrated once again what humanity has known since time immemorial —that nature can always throw another nonlinear term in any equation.

[Franc Forstnerič](#)

University of Ljubljana

2. NEWS FROM THE [COMMITTEE FOR WOMEN IN MATHEMATICS \(CWM\)](#)

Better proportion of women lecturers at ICM 2022. The list of the mathematicians who will give the invited lectures during the ICM 2022 program has been officially published. CWM is happy to report that the proportion of women (plenary and sectional) lecturers has reached a little more than 20%. For the previous ICMs (Rio 2018, Seoul 2014, Hyderabad 2010) the proportion had stabilized around 15%, after a period of growth starting in the 1990s.

MATEMATIKA TRIP IS OVER! A Russian mathematician (and interviewer) and a French photographer, Olga and Bertrand, have been travelling during the 2021 northern hemisphere summer through Russia from Khabarovsk to Saint Petersburg, in order to meet the ten heroines of [MATEMATIKA, Through a Land of Mathematics](#), a project supported by the CWM. From their discussions and impressions an exhibition and a book will be created. The exhibition will be premiered at the [World Meeting for Women in Mathematics \(WM\)²](#) on 5 July 2022 in Saint Petersburg.

Awards named for Maryam Mirzakhani. The [Maryam Mirzakhani New Frontiers Prize](#) has been awarded in 2022 to Sarah Peluse, Hong Wang, and Yilin Wang. In 2021, for its first year, the prize [was awarded](#) to Nina Holden, Urmila Mahadev and Lisa Piccirillo.

The [Fondation Mathématique Jacques Hadamard](#) has created the [Prix Junior Maryam Mirzakhani](#), which was awarded for the first time in 2021, to Bertille Follain and Blandine Galiay.

See more on the [CWM News page](#).

SCGES first annual report on gender equality in science. SCGES, the [Standing Committee for Gender Equality in Science](#), was established in September 2020, with the IMU and ICIAM among its nine founding members. Six new International Science Council members joined SCGES recently. The first annual report of SCGES will be online [here](#), in early October.

[Marie-Françoise Roy](#) and [Carolina Araujo](#)

Chair and Vice-chair of the IMU [Committee for Women in Mathematics](#)

3. INTERNATIONAL DAY OF MATHEMATICS 2022: “*MATHEMATICS UNITES*”

The 2022 theme for the [International Day of Mathematics](#) (IDM 2022) is [Mathematics Unites](#). It was proposed by Yuliya Nesterova, a graduate student from the University of Ottawa in Canada: “*Mathematics unites, to signal that it is a common language we all have and a common subject with which to find one another.*”

A call for quotes of interpretations of the 2022 theme, *Mathematics Unites*, is now open on the IDM website until 31 October 2021. Quotes are limited to 150 characters.

If you have not yet done so, please register to receive the IDM Newsletter on the IDM website to learn of all announcements.

[Christiane Rousseau](#)

[Chair of the IDM Governing Board](#)

4. ICM 2022 NEWS FROM SAINT PETERSBURG

Invited speakers. The ICM 2022 Program Committee has determined the list of ICM 2022 Plenary, Special, and Invited Speakers. Visit [this page](#) for a wealth of information.

EMS Kovalevskaya Travel Grant to attend ICM 2022. The [European Mathematical Society](#) has announced travel grants within the Kovalevskaya grants framework. These grants are for graduate students, postdocs and other early career mathematicians traveling to ICM 2022. They are given in partnership with the ICM 2022 Local Organizing Committee and are established in addition to the national Kovalevskaya grants. Approximately 150 grants will be awarded.

See the announcement on the [EMS website](#) for [complete information](#), and note that the application should be received by 15 October 2021.

Interviews. ICM 2022 has started the publication of interviews with ICM 2022 speakers. In the first issue of this collection, [Yulia Alexandr interviews Bernd Sturmfels](#), a Director of the Max Planck Institute for Mathematics in the Sciences and a Professor at the University of California, Berkeley. Bernd Sturmfels will give a Special Invited Lecture at ICM 2022. The video of the interview may be found on the [ICM 2022 YouTube channel](#); visit [this page](#) for a transcript, available in English and in Russian.

Interested readers are kindly encouraged to visit the [News Page of ICM 2022](#).

5. MATHEMATICS WITHOUT BORDERS: THE CENTENNIAL OF THE IMU

The [Centennial Conference of the International Mathematical Union](#) took place at the Palais Universitaire, Strasbourg, on 27 and 28 September 2021. The conference was streamed live by Université de Strasbourg. Recordings are [available on this page](#).

Visit the [website of the conference](#) for further information.

6. THE UNITY OF MATHEMATICS: A CONFERENCE IN HONOUR OF SIR MICHAEL ATIYAH

[The Unity of Mathematics: a Conference in Honour of Sir Michael Atiyah](#) was held as a hybrid meeting from 21 to 23 September 2021 at the [Isaac Newton Institute](#), Cambridge, UK. Recordings of the lectures are available on [the webpage of the meeting](#).

7. THE 2022 BREAKTHROUGH PRIZE IN MATHEMATICS

[Takuro Mochizuki](#), from Kyoto University, is the [2022 laureate of the Breakthrough Prize in Mathematics](#), “for monumental work leading to a breakthrough in our understanding of the theory of bundles with flat connections over algebraic varieties, including the case of irregular singularities.”

The [2022 New Horizons Prize laureates](#) are Aaron Brown, Northwestern University, Sebastian Hurtado Salazar, University of Chicago, Jack Thorne, University of Cambridge, and Jacob Tsimerman, University of Toronto.

The [2022 Maryam Mirzakhani New Frontiers Prize laureates](#) are Sarah Peluse, Institute for Advanced Study and Princeton University, Hong Wang, University of California, Los Angeles, and Yilin Wang, MIT.

Visit [this page](#) for the announcement of the 2022 Breakthrough Prizes.

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