

IMU News 108: July 2021

A Bimonthly Email Newsletter from the International Mathematical Union

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SUBSCRIPTION RENEWAL REMINDER

You may recall that we are in the process of moving to a new system for delivering IMU News. The transition will soon be complete and, therefore, if you have not yet renewed your subscription, please do go to

<https://www.mathunion.org/organization/imu-news>

to do so. This renewal is necessary so that we comply with the EU General Data Protection Regulation (GDPR). The renewal process is very simple.

1. EDITORIAL: MCA 2021 MATHEMATICAL CONGRESS OF THE AMERICAS

The [Mathematical Congress of the Americas 2021](#) (MCA 2021) took place from July 9th, when the MCA Awards Ceremony was broadcast through our [YouTube channel](#), to July 23th, the day of the last special session and invited talks and the plenary lecture delivered by Carlos Kenig, President of the International Mathematical Union. We are very happy about the congress. Even if our initial intention was to receive all the participants in Buenos Aires, which would have allowed closer contact between visitors and local researchers, we succeeded in maintaining an intense virtual activity in these hard times of COVID-19 pandemic. We hope that this activity will foster collaboration among researchers, students, institutions and mathematical societies in the continent.

We had more than 1600 registered participants, including almost 400 from Argentina. More than one thousand of the participants are based in Latin America and around 400 are from institutions in the United

States and Canada. We also had participants from Europe—specially from Spain, Italy, France and Germany—and even from Asia.

On July 9th, coinciding with our Independence Day, we had the pleasure to announce the MCA Award winners and to virtually present the prizes to them, in a nice ceremony conducted from the Conference Room of the Mathematical Research Institute Luis Santaló (IMAS) and the Mathematics Department of Facultad de Ciencias Exactas y Naturales of Universidad de Buenos Aires. The work of each awardee was presented through a pre-recorded video and the winners had the opportunity of saying a few words. The video of the ceremony is [posted here](#). As this is being written, it has had 1153 views.

We had 6 plenary talks, delivered by Ian Agol, Julia Chuzhoy, Carlos Kenig, Allan Sly, Claire Voisin and Miguel Walsh. The program also included 5 prize lectures, 20 invited lectures and 37 special sessions with a total of 661 speakers, including Fields medalist Manjul Bhargava.

One of the highlights of MCA2021 was the activity “Diversities in Math”, held on July 20th. It was organized by the Gender and Diversity Committee of [UMALCA](#), with Montse Cordero (San Francisco State University) and Pamela Harris (Williams College) as invited speakers. The recording [is accessible here](#). We warmly recommend it!

We also point out that a special volume of Revista de la Unión Matemática Argentina will be devoted to MCA2021: two numbers are planned; one for papers from plenary & invited speakers and one for the sessions. Revista de la Unión Matemática Argentina is an open access journal, free of charge for both authors and readers. Please visit [its homepage](#).

We would like to thank the sponsors of MCA2021: Departamento de Matemática, FCEyN-UBA, IMAS (UBA-CONICET), Unión Matemática Argentina, American Mathematical Society, Clay Institute, National Science Foundation (USA), CONICET, and Agencia Nacional de Promoción de la Investigación, el Desarrollo Tecnológico y la Innovación.

For the local organization of MCA 2021 we were supported by a team of 39 people. We are deeply indebted to all of them for their help; we specially thank the 29 graduate and undergraduate students and postdocs who assisted each of the special sessions.

[Guillermo Cortiñas](#) and [Andrea Solotar](#)

Universidad de Buenos Aires

2. NEWS FROM THE COMMISSION FOR DEVELOPING COUNTRIES (CDC)

Updated flyers. The [IMU-CDC](#) is particularly interested in ensuring that information about IMU financial support opportunities for mathematicians based in developing countries reaches as many mathematicians as possible, all around the world.

To this end, we have edited some updated flyers that can be downloaded from the [CDC funding opportunities webpage](#). We encourage you to share them on social networks, to send them by email and to

post them on the bulletin boards of departments and research institutes. We thank you in advance for your collaboration in this dissemination effort.

[Olga Gil-Medrano](#)

[Secretary for Policy of the CDC](#)

3. NEWS FROM THE COMMITTEE FOR WOMEN IN MATHEMATICS (CWM)

Asian-Oceanian women in Mathematics (AOWM). The first Asian and Oceanian CWM ambassador meeting was held on-line on June 25th and 26th, 2021. It was organized by Sanoli Gun (India), Kyeown Koh Park (Korea), Polly Sy (Philippines), Dongmei Xiao (China), Motoko Kotani (Japan, Chair). Its purpose was to discuss how to build a network of women mathematicians working in Asian and Oceanian countries, and to discuss initiatives on the gender issue. All CWM ambassadors in Asia and Oceania were invited, with 40 participants on each day.

There was a keynote talk by Marie-Francoise Roy on the Gender Gap project, and plenary scientific talks by Ayesha Asloob (Pakistan, working in Turkey), and Yongwimon Lenbury (Thailand). An important component was a series of presentations by CWM Ambassadors from 20 countries, each of which involved (1) an introduction of herself and fellow ambassadors from her country, (2) a summary of the academic situation of women mathematicians in her country and existing national initiatives for women in mathematics, and (3) suggestions for possible regional activities for women in mathematics and ideas for better communication between CWM ambassadors, and from ambassadors to their communities.

Those presentations were followed by a panel discussion moderated by Polly Sy about information exchange concerning the current situation, challenges and opportunities, experienced by Asian-Oceanian women in mathematics; and finding ways to connect and strengthen linkages among Asian-Oceania women in mathematics.

The meeting resolved to form the “Asian-Oceanian Women in Mathematics” (AOWM) and to establish a working group charged with producing draft AOWM guidelines.

STOP PRESS: CWM congratulates Austrian mathematician [Anna Kiesenhofer](#) for her stunning performance in the women’s road race, road cycling, [winning a gold medal in the Tokyo Olympics](#). Anna Kiesenhofer is a postdoctoral researcher at the École Polytechnique Fédérale de Lausanne (EPFL).

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

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

4. IDM 2022 INTERNATIONAL DAY OF MATHEMATICS

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.*”

If you have not yet done so, [register to the IDM Newsletter](#) on the [IDM website](#) to learn of all announcements.

[Christiane Rousseau](#)

[Chair of the IDM Governing Board](#)

5. ICM 2022 NEWS FROM SAINT PETERSBURG

The clock has started ticking. The countdown to the International Congress of Mathematicians 2022 was launched in St. Petersburg on 6 July 2021, exactly one year before the opening of the congress. Marking the occasion, an art piece, “The Pythagorean Theorem”, [was inaugurated](#) in front of the main entrance to the building of the [Twelve Collegia](#), where St. Petersburg University has long been located. This was the first in a series of events that will take place during the countdown leading to ICM 2022. Read [this piece of news](#) on the [ICM 2022 website](#).

News from the organizing committee. Visit [this news page](#) of the [ICM 2022 website](#) for a recent interview given by Andrei Okounkov and Stanislav Smirnov, members of the ICM 2022 Organizing Committee.

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

6. MATHEMATICS WITHOUT BORDERS: THE CENTENNIAL OF THE IMU

The International Mathematical Union was [officially established on 20 September 1920 in Strasbourg](#), just prior to the ICM in that location. The centennial of the IMU will be celebrated at the meeting [Mathematics without Borders](#), which will take place on 27 and 28 September 2021, at the Palais Universitaire, Strasbourg, the very same building where the 1920 ICM was held. The opening session of the meeting will be held under the High Patronage of Mr. Emmanuel Macron, President of the French Republic.

The Centennial Conference was originally scheduled for September last year, 100 years after the founding of the IMU. It was rescheduled to September 2021 due to the pandemic.

All speakers have confirmed in-person participation if regulations allow, and a regular in-person conference is planned. The entire conference will be webcast live as well.

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

7. TYAN VIRTUAL THEMATIC WORKSHOPS IN MATHEMATICS

Designed in 2020 during the pandemic crisis, the [TYAN Virtual Thematic Workshops in Mathematics](#) aims at bringing together leading mathematicians to discuss and advance mainstream lines of research in a virtual, yet warm ambient. In resonance with the mission of [TWAS, the World Academy of Sciences](#), these events promote diversity and geographic balance of the participants, with special attention to developing countries.

The workshops are organized by the TYAN (TWAS Young Affiliates Network), the TWAS-LACREP (Latin America and the Caribbean Regional Partner of The World Academy of Sciences), the Young Academy of Argentina, and the Brazilian Mathematical Society. The events also count on the warm support of the Brazilian Academy of Sciences and the Mexican Mathematical Society.

Distinguished mathematicians comprise the scientific committee: Alicia Dickenstein (Universidad de Buenos Aires, Argentina), Renato Iturriaga (CIMAT, Mexico), Carlos Kenig (University of Chicago, USA), Maria José Pacífico (Universidade Federal do Rio de Janeiro, Brazil), and Paolo Piccione (Universidade de São Paulo, Brazil).

The organizing committee is formed by TYAN members Franco M. Cabrerizo (Universidad Nacional de San Martín, Argentina), Hernán Grecco (Universidad de Buenos Aires, Argentina), Jaqueline Godoy Mesquita (Universidade de Brasília, Brazil), Eduardo Teixeira (University of Central Florida, USA) and Ferrán Valdez (Universidad Nacional Autónoma de México, Mexico).

Three workshops were organized in 2020, dedicated to the following themes: Dynamical Systems, Nonlinear Dynamical Systems and Delay Equations, and Algebra.

The next edition will be held on September 27, 2021, and is dedicated to the field of Partial Differential Equations. Felipe Linares (IMPA, Brazil), Claudio Muñoz (Universidad de Chile, Chile), Edgard Pimentel (PUC-Rio, Brazil) and Mariel Sáez Trumper (PUC, Chile) are the confirmed speakers. The event will also feature Monica Musso (University of Bath, UK) and Gustavo Ponce (University of California, Santa Barbara, USA) as moderators. The event will be broadcast on Zoom and will be recorded.

For more information and details, including the complete program and registration link, please access the [homepage of the series](#).

We look forward to (virtually) seeing you all in the event!

The Organizing Committee

TYAN Virtual Thematic Workshops in Mathematics

8. CLAM 2021 LATIN AMERICAN CONGRESS OF MATHEMATICIANS

The [6th Latin American Congress of Mathematicians](#) (CLAM) will be held 13 to 17 September 2021, in Uruguay, in online format.

CLAM is held every four years, to contribute to the development of mathematical research in Latin America and the Caribbean, to strengthen the visibility of mathematics in society and to foster mathematical collaboration in the region and with the rest of the world.

The [UMALCA Prizes](#), given to recognize outstanding achievements of young mathematicians of the region, are awarded at CLAM. Owing to the pandemic, the 2020 UMALCA Prizes were awarded in a separate ceremony on 14 September 2020. Visit [this page](#) for details and [a recording](#) of the 2020 Award Ceremony.

The 2020 UMALCA Prizes were awarded to Iván Angiono (CIEM-FAMAF, Córdoba, Argentina), Luna Lomonaco (IMPA, Rio de Janeiro, Brazil), Luis Núñez-Betancourt (CIMAT, Guanajuato, Mexico), and Rafael Potrie (UDELAR, Montevideo, Uruguay).

9. THE 2021 SHAW PRIZE IN MATHEMATICAL SCIENCES

Jean-Michel Bismut, Emeritus Professor at Université Paris-Saclay, France, and Jeff Cheeger, Silver Professor of Mathematics at the Courant Institute of Mathematical Sciences, New York University, USA, have been awarded the [2021 Shaw Prize in Mathematical Sciences](#), “for their remarkable insights that have transformed, and continue to transform, modern geometry.”

[Jean-Michel Bismut](#) was born in 1948 in Lisbon, Portugal. He graduated from École Polytechnique in 1970, France, and earned his PhD in Mathematics in 1973 from the Université Paris VI, France. He is a member of the French Academy of Sciences.

[Jeff Cheeger](#) was born in 1943 in Brooklyn, New York City, USA. He obtained his Bachelor's degree from Harvard University, USA, in 1964, and received his MS (1966) and PhD (1967) in Mathematics from Princeton University, USA. He is a member of the US National Academy of Sciences, American Academy of Arts and Sciences, and the Finnish Academy of Science and Letters.

Visit the [Shaw Prize website](#) for a wealth of related information, including [a press release](#) for the 2021 award.

10. WOLF PRIZE AWARD CEREMONY 2020 AND 2021

[Sir Simon Donaldson](#) and [Yakov Eliashberg](#) were awarded the Wolf Prize for Mathematics for 2020 “for their contributions to differential geometry and topology.”

Owing to the COVID-19 pandemic, the award ceremony for the Wolf Prizes could not be held in the customary format in the past two years. The [Wolf Foundation](#) decided to hold personalized ceremonies for the 2020 and 2021 laureates and a video with these ceremonies was broadcast on 28 June 2021. To access this video, readers are invited [to visit this page](#).

11. CALL FOR NOMINATIONS FOR THE OLGA TAUSSKY-TODD LECTURE

The [Olga Taussky-Todd Lecture](#) is held every four years at the [International Congress on Industrial and Applied Mathematics](#) (ICIAM). This honor is conferred on a woman who has made outstanding contributions in applied mathematics and/or scientific computation.

The lecture is named in tribute to the memory of Olga Taussky-Todd, whose scientific legacy is in both theoretical and applied mathematics, and whose work exemplifies the qualities to be recognized.

The Officers and Board of ICIAM now call for nominations for the Olga Taussky-Todd Lecture, to be given at the [ICIAM 2023 Congress](#), to take place in Tokyo (Japan) from August 20 to August 25, 2023.

A nomination will consist of

- Full name and address of person nominated,
- Web homepage if any,
- Justification for nomination (in at most two pages, cite nominator's reason for considering candidate to be deserving, including explanations of the scientific and practical influence of the candidate's work and publications),
- 2-3 letters of support from experts in the field (not mandatory). Each of them having a maximal length of two pages,
- CV of the nominee,
- Name and contact details of the proposer.

Nominations should be made electronically through [this website](#). The deadline for nominations is December 30th, 2021.

Please contact president@iciam.org if you have any question regarding the nomination procedure.

Olga Taussky-Todd Committee for 2023

- Lisa Fauci (Tulane University), Chair
- Mirjam Dür (University of Augsburg)
- Isabelle Gallagher (École Normale Supérieure)
- Suzanne Weekes (Worcester Polytechnic Institute)
- Mary Wheeler (University of Texas at Austin)
- Guiying Yan (Chinese Academy of Sciences)

[Ya-xiang Yuan](#)

[ICIAM President](#)

12. GOLD MEDAL FOR A MATHEMATICIAN IN THE TOKYO 2020 OLYMPICS

IMU News joins the CWM in congratulating mathematician Anna Kiesenhofer on her winning a Gold Medal at the Tokyo 2020 Summer Olympics. Many a mathematician around the world is surely in awe of her wonderful achievement in Tokyo! Heartfelt congratulations!

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