

OPENING GREETINGS BY THE IMU PRESIDENT

I am Carlos E. Kenig, the President of the IMU, and I would like to welcome those of you here in person in Helsinki, and the great majority of you who are participating online, to the 2022 virtual ICM.

As many of you know, the 19th General Assembly (GA) of the IMU and the 2022 ICM were scheduled to take place this July in Saint Petersburg, Russia. This did not happen. Due to the brutal Russian invasion of Ukraine, the Executive Committee (EC) of the IMU decided, at its virtual meeting in February 2022, that it would be impossible to host the scheduled GA and ICM in Russia. The EC expressed, at the time – and we reiterate it here today – its deepest sympathy to the Ukrainian people and to our Ukrainian colleagues in these grave circumstances.

The EC decided at this meeting to hold the GA as a traditional in-person event outside of Russia. After receiving several offers from our members, for which we are truly grateful, we decided to accept the extremely generous offer from Finland to host the GA. The GA was successfully held in Helsinki two days ago and many important decisions for the future of our Union were taken.

The ICM is a much more complex and extensive event than the GA. At the same EC meeting, we also decided on how to proceed with the ICM. Since ICM speakers had already been selected and notified, and the EC had a strong desire to follow the tradition of reporting the most exciting mathematical developments of the last four years, and given the infeasibility of alternative options, we decided to opt for a fully virtual ICM, with its organization taken over by the EC. Indeed, modern technology and the experience of the pandemic made this a realizable option. Moreover, the ongoing barbaric war that Russia continues to wage against Ukraine shows that there was no feasible alternative. The organization of the virtual ICM has been an enormously challenging and labor-intensive task. It had to be carried out under very difficult and constrained financial circumstances, and it has put a severe strain on IMU

personnel, since we cut-off entirely the financial and organizational ties that Russia had been providing. Thus we are immensely grateful to the Heidelberg Laureate Forum Foundation for its very generous financial support. We are also indebted to the London Mathematical Society, the Mathematical Society of Japan, NTNU (the Norwegian University of Science and Technology), the Commission for Developing Countries (CDC), the International Commission on Mathematical Instruction (ICMI) and the Friends of the International Mathematical Union (FIMU) for their generous financial support. The IMU is also extremely grateful to the IMU Secretary General, Helge Holden, and to the IMU staff at the Secretariat in Berlin, especially to Scott Jung, the IMU Manager and Vanessa Chung, the IMU Assistant, for their remarkable efforts in dealing with the many administrative and logistical challenges that arose. We are also especially thankful to EC members Nalini Joshi and Paolo Piccione, and to Martin Hairer, chair of the Program Committee, for their very valuable help in the preparation of the virtual ICM. The self-organized ICM Satellite Coordination Group, led by Alexei Borodin, Martin Hairer and Terence Tao, has also worked independently of the IMU to coordinate the organization of various community based, overlay events in conjunction with the virtual ICM. We are extremely grateful for all these efforts.

We are all now greatly looking forward to this wonderful opportunity – unfolding over the next nine days – to learn about the most important mathematical discoveries of the last four years!

The scientific organization of an ICM is a daunting task. There are two very important committees of the IMU dedicated to this. The first one is the Structure Committee, whose remit it is to decide the scientific structure of the ICM. This is the inaugural congress for the Structure Committee, which is to remain a standing committee (with rotating membership) to enable the continuous evaluation and revision of the scientific structure of the Congress. The Structure Committee is chaired by Terence Tao (UCLA).

The second committee is the Program Committee (PC), whose charge is to select the speakers for the Congress. It is chaired by Martin Hairer (Imperial College London). The PC carried out its work with the advice of 20 sectional panels.

We are very thankful to all the self-less volunteers who did a wonderful job in developing the outstanding scientific organization of the Congress.

Traditionally, at the opening ceremony of an ICM there is an award ceremony, at which all the recipients of the IMU prizes are announced. At the virtual February 2022 meeting of the EC, it was decided that on July 5, the day after the GA, there would be a live award ceremony, at which all the IMU prizes would be announced. This took place yesterday, in Helsinki, with the generous help of our Finnish colleagues. At this ceremony, Hugo Duminil-Copin, June Huh, James Maynard and Maryna Viazovska were awarded the 2022 Fields Medal, Mark Braverman was awarded the inaugural IMU Abacus Medal, Barry Mazur was awarded the Chern Medal, Elliott H. Lieb was awarded the Gauss Prize and Nikolai Andreev was awarded the Leelavati Prize.

Today, July 6, is the opening day of the virtual ICM. We will take advantage of the fact that the Fields Medalists and the IMU Abacus Medalist are all present in Helsinki, so that the recipients can give their ICM plenary talks in front of a live audience in Helsinki.

Their lectures will, of course, also be streamed via the virtual ICM platform, for those who are not fortunate enough to be in Helsinki today.

Without further ado I declare the 2022 virtual ICM open!

Carlos E. Kenig
President of the IMU

ACKNOWLEDGEMENTS. I would like to thank Scott Jung, the IMU Manager, for his careful reading of the text, and numerous improvements.