

IMU-Net 96: July 2019

A Bimonthly Email Newsletter from the International Mathematical Union

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1. EDITORIAL: ROLES OF THE COMMISSION FOR DEVELOPING COUNTRIES (CDC)

Welcome to this issue of IMU-Net, in which we take you through a tour of the Commission for Developing Countries ([CDC](#)), a body of IMU that has the mandate to manage all IMU initiatives in support of mathematics in the developing world. (What counts as a developing world itself being a complex question since, as one hopes, some countries, which were developing at one point, become developed at a later point!).

During the last 4 years, IMU classified Developing Countries as those with GNI per capita in US dollars not exceeding USD 11,000, in accordance with the United Nations data. IMU Executive Committee (EC) has charged CDC the task of revising this definition of developing country for the next 4 years, which, after approval by the EC, will be used for all IMU purposes, in particular for the travel grants for ICM 2022 in St. Petersburg.

CDC expects to play a role in the forthcoming ICM at St. Petersburg, Russia, in 2022, which has promised full support for a thousand mathematicians from developing countries, and a support for 1300 additional younger mathematicians for their local expenses.

Each CDC has a tenure of 4 years, concurrent with the tenure of the EC of the IMU, the present commission taking charge on January 01, 2019. Many members of the commission (including the President, Secretary for Policy and Secretary for Grants Selection) were elected by the General Assembly (GA) of the IMU last year; some are appointed by the IMU EC or by the International Commission for Mathematical Instruction (ICMI), and the president of IMU is an ex-officio member of the CDC.

The CDC and all CDC related activities are supported by the [IMU Secretariat](#) located in Berlin. The Secretariat is responsible for most of the administration of the CDC. In addition, many volunteers support CDC activities worldwide. Our sincere thanks to all of them!

The CDC supports different types of programs and activities: Grants for Conferences, Project Support, Lecturing and Mentoring, Individual Research Visits and Graduate Support. The details concerning the programs can be found at <https://www.mathunion.org/cdc> and appear periodically in this IMU-Net. You can help by distributing the information!

From the IMU budget, the GA has allocated to CDC a certain annual grant besides which IMU also receives, as donations for CDC programs, a certain additional amount. This additional support is received from the winners of the [Breakthrough Prizes](#), other individual mathematicians, and from the [Simons Foundation](#), the [Abel Board](#), the [American Mathematical Society](#) and the Mathematical Societies of [Japan](#) and [Switzerland](#). We are very grateful to the generous support of all these organizations and individuals that make the CDC activities possible. We will be happy if more mathematicians and mathematical societies from the developed world joined the list of donors.

Dipendra Prasad, President, Commission for Developing Countries

2. VOLUNTEER LECTURER PROGRAM OF THE CDC

The goal of this program is to foster research and international cooperation between mathematicians in developing countries and the international mathematical community, offering to the universities in the developing countries the economic support to host volunteer lecturers for intensive 3-4 week courses in mathematics. The course given by the volunteer should be part of a regular mathematics undergraduate or master degree program at the hosting university, in subjects where the applicant university could have a lack of expertise. The program is partially funded by the American Mathematical Society and the Niels Henrik Abel Board (Norway).

If the Mathematics Department in need of this support has not been in contact previously with the lecturer they want to host, CDC can provide the list of more than 80 volunteers that have registered on our website, offering themselves as lecturers. The deadlines for applications are:

- September 1, 2019 for lectures starting after January 1, 2020.
- December 1, 2019 for lectures starting after April 1, 2020.
- March 1, 2020 for lectures starting after July 1, 2020.
- June 1, 2020 for lectures starting after October 1, 2020.

More information can be found on <https://www.mathunion.org/cdc/lecturing/volunteer-lecturer-program>

3. NEWS FROM THE CWM

a) Gender Gap in Science Project

The [Gender Gap in Science Project](#) Final Meeting takes place at [ICTP](#) from 4 to 8 november 2019. Over 90 participants are expected, from all continents and about 45 countries, with representatives of all the 11 partners and organizations from the project.

The first aim of the meeting is to report on the methodology, tools produced and results of the project and to formulate recommendations and open questions based on the results. All talks will be informed by the results of the survey, data analysis of publications, and compilation of good practices. Preliminary results for mathematics show that women report lower salaries, more career interruptions, and more instances of discrimination.

The second aim is to present the tools of the project in an interactive way and to make it possible for attendees to learn how to use them and answer their own questions. The program of the meeting will include computer activities and discussions in small groups.

A round table on the gender gap in science in Europe and in North America will take place at [SISSA](#) on November 6 afternoon, with the following panelists: Silvana Badaloni, European Platform of Women Scientists; Jean-Pierre Bourguignon, European Research Council president; Katherine Clancy, representative of the National Science Academies from US; and Jodi Tims, Association for Computing Machinery.

b) CWM meeting on November 9 and 10 at ICTP

CWM has been renewed in July 2018, and its members met electronically in September and had intense email correspondence afterwards. Its first physical meeting will take place at ICTP on 9-10 November 2019. All committee members, as well as our EC liaison, C. Kenig, IMU president, should be able to attend.

Among the topics to be discussed are

- the plan of activities of CWM until 2022,
- the conclusions and recommendations of the Gender Gap Project and how to implement them inside IMU,
- a discussion on the project of the second World Meeting for Women in Mathematics (WM)², on 5 July 2022, in Saint Petersburg, the day before the opening of ICM. We are in contact with the ICM organizers and invited their representative to participate to this discussion.

c) ICM 2022 News and Olga Alexandrovna Ladyzhenskaya

The year 2022 will mark the 100th anniversary of the birth of O. A. Ladyzhenskaya, a great woman in mathematics, who occupies a very special place in the history of St. Petersburg mathematics. CWM is delighted to learn that the organizers of ICM 2022 plan to celebrate her life and legacy in a multitude of ways.

The first issue of ICM 2022 is devoted to essays about O. A. Ladyzhenskaya written by renowned experts, people who either knew her well or who were influenced by her in a transformative way. This collection contains essays by P. Daskalopoulos, by A. Vershik, by L. Kapitanski and N. Reshetikhin, and by D. Apushkinskaya and A. Nazarov.

More information: <http://math.columbia.edu/~okounkov/Ladyzhenskaya.pdf>

4. INSIDE THE IMU

Cyprus has applied for full membership in group I of the IMU. The Executive Committee of the IMU unanimously recommends the application. The Adhering Organizations will vote on the application from Cyprus. Deadline: **20 September 2019**.

The ICM 2022 will take place 6–14 July 2022 in St. Petersburg, Russia. The 19th General Assembly of the IMU will be held in St. Petersburg, on 3–4 July 2022. The official website of the Congress is <https://icm2022.org>.

5. SURVEY BY THE EMS EDUCATION COMMITTEE

Student transition from school-level mathematics to university-level mathematics, often referred to as the secondary-tertiary transition (STT), is an enduring, complicated and multi-faceted process. STT is a long-standing issue of concern, which has merited significant attention in mathematics education research and practice. The EMS Education Committee recognized that our knowledge about successful ways of dealing with STT is still insufficient and that moving forward requires a large-scope effort on the part of all parties involved, including mathematics lecturers, schoolteachers, education researchers, policymakers and students in transition. As part of this effort, the Committee is conducting a survey among mathematicians. The goal of the survey is to collect and report to the mathematics community information needed in order to devise national and international actions that can essentially improve the state of the art with respect to STT.

We would be thankful if

- (1) the adhering national societies of IMU distributed the survey below among their members,
 - (2) readers of IMU-net completed the survey below and distributed it among further colleagues.
- The completion of the survey takes about 15 minutes. The survey is open until September 15, 2019.

<https://docs.google.com/forms/d/e/1FAIpQLSdcxoDW63m1h7nmdacQkhtWS8cGHH84K4a8OU-fWVnqIEuGJA/viewform>

For more background information about STT, we refer to <http://euro-math-soc.eu/sites/default/files/STT-survey-%2015-02-2019.pdf>.

6. 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

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