IMU-Net 89: May 2018
A Bimonthly Email Newsletter from the International Mathematical Union
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1. EDITORIAL: AFRICAN MATHEMATICAL UNION

The African Mathematical Union (AMU) was founded during the first Pan African Congress of Mathematicians, which took place in Rabat, Morocco in July 1976. Its creation had been prepared during several meetings of African mathematicians that took place in France, Senegal, Canada, Ghana, Morocco and Côte d'Ivoire during the early 1970s.

The AMU defined as its mission to coordinate and to promote the quality of teaching, research and outreach activities in all areas of mathematical sciences throughout Africa. Advancing mathematical research and education includes efforts and contributions towards the economic, social and cultural development of the continent. Moreover, the AMU aims at stimulating active cooperation among African mathematicians and, more broadly, with African scientists and engineers. The AMU is eager to collaborate with other scientific organizations inside and outside Africa pursuing similar goals.

In 1978, the AMU Executive Committee created the AMU Journal: "Afrika Matematika", initially with the aim to make mathematical research originating within Africa more widely known. Afrika Matematika has been published by Springer since 2011. In 1986, four Commissions were established:
1. The AMU Commission on Mathematics Education in Africa;
2. The AMU Commission on Pan African Mathematics Olympiads;
3. The AMU Commission on History of Mathematics in Africa;
4. The AMU Commission on Women and Mathematics in Africa.
5. In 2009, the AMU Commission for Research & Innovation in Mathematical Sciences was added.

The AMU is aware of the importance of Science Technology and Innovation (STI) for the socio-economic development of African nations highlighted by an initiative adopted by the African Union in 2014, which set up a 10-year Science, Technology and Innovation Strategy for Africa (STISA-2024). Hence the AMU has committed itself to the development of mathematics that can impact critical sectors of the economy, such as agriculture, energy, environment, health, infrastructure development, mining, security and water. A fruitful collaboration with industry and business within these sectors will help to have more mathematicians with relevant expertise employed.

As AMU President, I believe that the African Mathematical Union should be the primary structure contributing to the development of mathematics in Africa at all levels. In particular, the AMU should collaborate with all regional and national mathematical societies, foundations, and NGOs in Africa which share the same goals. We wish to highlight existing programs that are doing well in one region, so that they can share their experience and skills with other regions on the continent.

It is important that the AMU collaborates with all international mathematical societies, in particular the IMU, as well as with other national and regional societies. I would like to invite mathematical organizations throughout the world to pursue joint projects and to organize multilateral conferences and workshops, both in Africa and outside Africa. The International Day of Mathematics, once approved by UNESCO, would be a good place to start. After the successful organization of the International Mathematical Olympiad that took place in Cape Town in 2014, the AMU hopes that Africa can host an International Congress of Mathematicians on African soil in the near future.

Nouzha El Yacoubi (Mohammed V University, Rabat, Morocco, AMU President)

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2.   **CEIC: NOTES AND COMMENTS**

The Committee on Electronic Information and Communication (CEIC) continues to watch the developments in the debate/negotiations between (consortia of) libraries and the major publishers. We have already written about Germany/Elsevier (IMU-Net 87), and mentioned that the DEAL is also negotiating with SpringerNature and Wiley. Recently the Swedish Bibsam Consortium has cancelled its contract with Elsevier with effect from 30 June 2018: see http://openaccess.blogg.kb.se/2018/05/16/sweden-stands-up-for-open-access-cancels-agreement-with-elsevier/.

Though strong views have mostly been expressed about Elsevier (for example https://gowers.wordpress.com/category/elsevier/), it, Springer (even before the merger with Nature) and Wiley between them accounted for 47% of the Natural/Medical Sciences papers published in 2013 (https://doi.org/10.1371/journal.pone.012750). DEAL are still negotiating with SpringerNature and Wiley, but the French national consortium Couperin has reached an impasse with SpringerNature and has not renewed its contract with effect from 1 April 2018: https://www.couperin.org/breves/1333-couperin-ne-renouvelle-pas-l-accord-national-passe-avec-springer. At least in this case, the situation may change.

From a personal point of view, this makes the author of these lines regret even more the weak stance taken by the UK's negotiating bodies.

James Davenport (Bath, UK, CEIC chair)

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3.   **INSIDE THE IMU**

The IMU Adhering Organizations have approved Morocco as new member in group I of the IMU. Oman, Senegal and Thailand have all applied for full membership in the IMU. Uzbekistan has

applied for associate membership. The IMU Executive Committee has unanimously recommended these applications and subsequently launched a ballot among the Adhering Organizations.

The IMU Secretariat in Markgrafenstr., Berlin has been relocated. The new address reads:

> The International Mathematical Union
> Secretariat
> Hausvogteiplatz 11A
> 10117 Berlin
> Germany

Phone numbers and email addresses remain unchanged.

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4. IMU GENERAL ASSEMBLY AND ICM 2018

The 18th General Assembly of the International Mathematical Union is scheduled to take place in São Paulo, Brazil – Convention Hall (Grand Ballroom), Sheraton WTC Hotel during July 29–30, 2018. Information about the schedule, the program, the venue and practical information can be found at http://www.icm2018.org/portal/en/imu-assembly .

The International Congress of Mathematicians (ICM 2018) will take place in Rio de Janeiro – Convention Center Riocentro - subsequently, during August 1-9, 2018. Until **July 13**, it is still possible to register at a reduced fee. Practical information and details about the program are available at http://www.icm2018.org/portal/en/home .

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5. 2018 GLOBAL SURVEY OF MATHEMATICAL, COMPUTING AND NATURAL SCIENTISTS

The IMU Committee for Women in Mathematics (CWM) coordinates the project "A Global Approach to the Gender Gap in Mathematical and Natural Sciences: How to Measure It, How to Reduce It?" funded by the International Council for Science (ICSU) and co-funded by its 11 participating organizations. More detailed information can be found on the webpage https://icsugendergapinscience.org/ set up for this project.

One of the tasks of the project is a Global Survey of Mathematical, Computing, and Natural Scientists. Its aim is to collect data across the world to inform policy makers from all countries, especially developing countries, about reducing the gap between men and women in mathematical, computing, and natural sciences. For this task, CWM is seeking as much input as possible. You are cordially invited to contribute to the survey and provide relevant information by completing it.

The URL for the survey is

https://icsugendergapinscience.org/2018-global-survey-of-mathematical-computing-and-natural-scientists/ .

You can also get access by clicking on "SURVEY" in the upper right-hand box of the main page of the project. The survey is open **from May 1, 2018 until October 31, 2018**. It is available in English, French, Arabic, Chinese, Japanese, Russian and Spanish.

The Adhering Organizations of IMU have received an email letter informing them and they have been asked to circulate it within their communities and to invite their colleagues to make a contribution.

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6. **IMU-CDC PROJECT SUPPORT PROGRAM**

A new call of the Project Support Program is open from June 1, 2018. The Commission for Developing Countries (CDC) primarily supports higher education and capacity building projects, as well as local initiatives in mathematics and mathematical education, be they international, regional or local initiatives in developing countries; see https://www.mathunion.org/cdc/about-cdc/definition-developing-countries

In cases in which funding is granted, CDC grants will normally be in the range of EURO 1,000 to 5,000. Exact amounts will depend on the mathematical quality and impact and on budget constraints. The deadline for applications of projects starting during 2019 is **September 10, 2018**.

In the link https://www.mathunion.org/cdc/grants/project-grants you can find a description of the projects supported in previous years, more information on the program and the online application.

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7. **SHAW PRIZE AWARDED TO LUIS CAFFARELLI**

The Shaw Prize in Mathematical Sciences 2018 has been awarded to Luis A. Caffarelli (U Texas, Austin, USA) for "his groundbreaking work on partial differential equations, including creating a theory of regularity for nonlinear equations such as the Monge-Ampère equation, and free-boundary problems such as the obstacle problem, work that has influenced a whole generation of researchers in the field".

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8. **NEWS ON THE INTERNATIONAL DAY OF MATHEMATICS PROJECT**

IMU is leading the project of having UNESCO proclaiming March 14 the International Day of Mathematics (IDM). Here are some of the steps:
- We work on convincing several permanent delegations on the Executive Board of UNESCO to propose this proclamation as an item for the next Executive Board meeting in the fall of 2018.
- Once the proclamation is approved by the Executive Board, it has to be approved by the next General Conference of UNESCO in the fall of 2019.
- Hence an official first celebration of the International Day of Mathematics should hopefully take place on March 14 2020.

In parallel, we are building a community of organizations around the world that support the IDM project and are committed to spread the word and/or organize celebrations and Open Source material. There is a lot of enthusiasm for the IDM project among the communities of mathematicians, mathematics educators, associations of women in mathematics and some associations for the promotion of mathematics. Indeed, the IDM will provide an additional

opportunity for making a case for mathematics in each country and it is likely to increase regional, national and international collaboration. If your organization is willing to join the group of enthusiastic organizations supporting the IDM project, please contact Christiane Rousseau: rousseac@dms.umontreal.ca.

We will keep the community informed of the advancement of the project. In particular, there will be calls to the community concerning the logo and also for hosting the IDM website or some part of it.

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9. **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 to subscribe to IMU-Net online.

2. Send an e-mail to imu-net-request@mathunion.org with the Subject-line:
Subject: subscribe

In both cases you will get an e-mail to confirm your subscription so that misuse will be minimized. IMU will not use the list of IMU-Net emails for any purpose other than sending IMU-Net, and will not make it available to others.

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You can find here, for instance, detailed information about subscribing to the IMU-Net mailing list and unsubscribing from it.