



**Politecnico
di Torino**



Dipartimento di
Scienze Matematiche
G. L. Lagrange

ECCELLENZA 2018 • 2022

Cooperazione Matematica in Sud Sudan

September 21, 2022

International cooperation in mathematics:

some examples, including

**CIMPA, EMS - CDC, IMU - CDC,
ICTP, TWAS, OWSD, Simons Foundation,
ISP, RNTA, SEAMS, EMALCA,
APSA, SARIMA, AFRIMath**

Michel Waldschmidt

Professeur Émérite, Sorbonne Université,
Institut de Mathématiques de Jussieu, Paris

<http://www.imj-prg.fr/~michel.waldschmidt/>

CIMPA

CIMPA
Centre International de
Mathématiques Pures et
Appliquées



<https://www.cimpa.info/index.php>



Funding Opportunities

We give below a list of international institutions, organisations or foundations which work for the promotion of education and research and are likely to open calls and provide funding for the development of mathematics with a special emphasis on developing and emerging countries.

- [Agence Universitaire de la Francophonie \(AUF\)](#)
- [European Mathematical Society - Committee for Developing Countries \(EMS-CDC\)](#)
- [International Centre for Theoretical Physics \(ICTP\)](#)
- [International Mathematical Union - Commission for Developing Countries \(IMU-CDC\)](#)
- [International Science Program \(ISP\)](#)
- [Organization for Women in Science for the Developing World \(OWSD\)](#)
- [Schlumberger Foundation](#)
- [Simons Foundation](#)
- [The World Academy of Sciences \(TWAS\)](#)
- [Volkswagen Foundation](#)

Please let us know your suggestions to extend the above list by sending an email to director@cimpa.info.

CIMPA

The **Centre International de Mathématiques Pures et Appliquées (CIMPA)**, founded in France in 1978, is a nonprofit organisation that promotes research in Mathematics in developing countries. Located in Nice, it is a UNESCO Category 2 centre and is part of the Laboratoire d'Excellence CARMIN (Centres d'Accueil et de Rencontres Mathématiques Internationales). It benefits from the financial support of France, Norway, Spain, Switzerland and Germany.

<https://www.cimpa.info/en/node/9>

Laboratoire d'Excellence CARMIN (Centres d'Accueil et de Rencontres Mathématiques Internationales),

- Centre International de Mathématiques Pures et Appliquées (CIMPA)
- Centre International de Rencontres Mathématiques (CIRM)
- Institut des Hautes Études Scientifiques (IHÉS)
- Institut Henri Poincaré (IHP)

Programme CARMIN

1 séjour postdoctoral de 2 ans - 3 séjours de 6 mois pour des visites combinées à l'IHES et à l'IHP

CIMPA

CIMPA co-organises and sponsors numerous activities in developing countries, in all continents. Each activity is funded through a process of calls for proposals in one of the following categories:

- **CIMPA Schools:** This is the historical activity of CIMPA, it focuses on areas where there is a real drive to develop mathematics and where there is a scope for a research project. Calls for proposals are launched every year to organise about twenty CIMPA Schools per year.
- **CIMPA Courses:** This program consists in funding the organisation of master and research level courses in mathematics within the geographic areas of activities of CIMPA (Africa, Central and South America, Asia). Every year, two calls for proposals are launched with deadlines in early January and early July.
- **CIMPA Fellowships:** CIMPA funds the participation of young mathematicians from developing countries to short-term thematic international programs organised by some of our partner institutions. A call for applications is opened for each program.

<https://www.cimpa.info/en/node/9>

CIMPA

CIMPA also strongly supports activities developed in close collaboration with continental mathematical unions, such as **Schools in Partnership**, the purpose of which is to introduce undergraduate and Master students to research in mathematics. For most of its activities, CIMPA works in partnership with other organisations with similar objectives, such as the International Mathematical Union (IMU), the European Mathematical Society (EMS) and the International Centre for Theoretical Physics (ICTP).

<https://www.cimpa.info/en/node/9>

CIMPA Schools in 2022

DANGBO 2022 12/06/2022 to : 24/06/2022 Algèbre,
arithmétique et applications

THIES 2022 30/05/2022 to : 10/06/2022
Mathématiques en analyse et traitement du signal, des images
et des données

TUNIS 2022 24/09/2022 to : 03/10/2022
Vert Numérique : biologie mathématique et écologie théorique

TUNIS 2022 16/05/2022 to : 27/05/2022
Science des données et optimisation stochastique

2021 CIMPA School postponed due to Covid 19

DANGBO 2022 29/08/2022 to : 09/09/2022

Partial Differential Equations (PDEs) and Calculus of Variations

BRAZZAVILLE 2022 13/06/2022 to : 25/06/2022

École de géométrie

MBOUR 2022 27/06/2022 to : 08/07/2022

Cryptography, Theoretical and Computational Aspects of Number Theory

CAPETOWN 2022 18/07/2022 to : 29/07/2022

Mathematical and Statistical Methods for Data Sciences

2022 CIMPA African Mathematical Schools (AMS)

African Mathematical Schools (AMS)



List of African Mathematical Schools

Mathematical Programming and Algorithms

Venue: Kenya Institute of Government (Kenya)

Dates: July 11-29

Coordinators: Roberto Mantaci (Roberto.Mantaci@irif.fr) and Balazs Szendroi (szendroi@maths.ox.ac.uk)

Mathematical Modeling, applications in Actuarial Sciences and Public Health

Venue: Université du Burundi (Burundi)

Dates: September 19-30

Coordinator: Jean-Bosco Kayoya (jeankayoya@gmail.com)

Website: <http://emabujumbura2022.ecoledoctorale.ub.edu.bi>

Epidémies : Modèles mathématiques et traitement statistique des données

Venue: University Felix Houphouët Boigny (Ivory Coast)

Dates: September 19 - October 1

Coordinator: Modeste N'zi (modestenzi@yahoo.fr)

Asian and European Schools In Mathematics (AESIM)

In 2022, the CIMPA supports the organization of 4 AESIM Schools in Partnerships (previously WAMS).

List of Schools in Partnerships

Inverse Problems, Control and Optimization

Venue: Baku (Azerbaijan)

Dates: October (date to be determined)

Coordinator: Abdeljalil Nachaoui (Abdeljalil.Nachaoui@univ-nantes.fr)

Lattices, Diophantine Approximation and Heights

Venue: Urgench State University (Uzbekistan)

Dates: June 20 - 28

Coordinator: Zafar Ibragimov (z.ibragim@gmail.com)

Topics in Algebraic Number Theory

Venue: Salahaddin University-Erbil (Iraq)

Dates : August 22 - 28

Coordinator: Andam Ali Mustafa (andam.mustafa@su.edu.krd)

Topics in Commutative Algebra

Venue: University of Sulaimani (Iraq)

Dates: September 3 - 9

Coordinator: Chwas Abas Ahmed (chwas.ahmed@univsu.edu.iq)

<https://www.cimpa.info/en/node/6676>

EMALCA

Escuelas de Matemática de América Latina y del Caribe (EMALCA)

List of EMALCA in 2022

Emalca República Dominicana

Venue: Universidad Autónoma de Santo Domingo (Dominican Republic)

Dates: Mai 30 - June 10

Coordinator : Primitivo Acosta-Humaney (pacosta-humaney@uasd.edu.do)

Website: <https://www.umalca.org/2022/03/omalca-2022-rd/>

<https://www.cimpa.info/en/node/6671>

Emalca

Escuela Latinoamericana de Matemática

La Escuela de Matemática de América Latina y del Caribe (EMALCA) es una iniciativa de la **Unión Matemática de América Latina y el Caribe** (UMALCA).

Su objetivo principal es contribuir al desarrollo de la Matemática en todo el continente, poniendo en contacto a los más prestigiosos matemáticos e investigadores del continente junto a estudiantes de pre y postgrado, además es una de las actividades con mayor número de eventos por parte de las instituciones que integran a **UMALCA**. También cuenta con la importante colaboración y apoyo del **Centre International de Mathématiques Pures et Appliquées, CIMPA**.



<https://www.umalca.org/eventos/emalca/>

EMALCAS 2022

Emalcas 2022

May 18, 2022 | Emalca

Emalcas a realizarse durante 2022 en Brasil, Ecuador, México y República Dominicana.

1. **Emalca Amazonas:** 4 al 14 de octubre del 2022

Organizada por la Universidade Federal do Amazonas – Brasil

<https://www.algebra.ufam.edu.br/emalca/>

2. **Emalca Ecuador:** 25 de julio al 5 de agosto del 2022

Organizada por la Universidad Técnica de Manabí (UTM) – Ecuador

<https://utm.edu.ec/emalca/>

3. **Emalca México:** 11 al 15 de julio de 2022

Organizada por CIMAT y Sociedad Matemática Mexicana – México

<https://emalca2022.eventos.cimat.mx/>

4. **Emalca República Dominicana:** 30 de mayo al 10 de junio de 2022

Organizada por la Universidad Autónoma de Santo Domingo, Facultad de Ciencias – República Dominicana

<https://emalca2022.spcweb.com.do/>

<https://www.umalca.org/2022/05/emalcas-2022/>

EMS Committee for Developing Countries

EMS
European Mathematical
Society

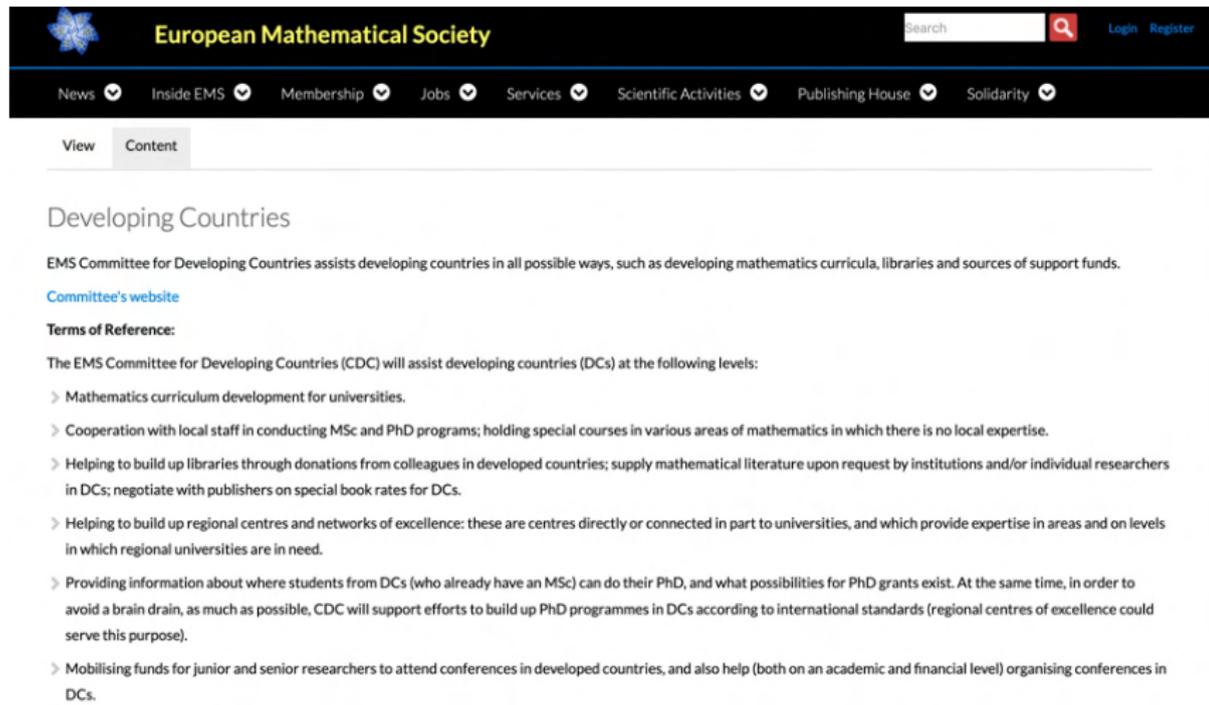


EMS Committee for Developing Countries assists developing countries in all possible ways, such as developing mathematics curricula, libraries and sources of support funds.

<https://euromathsoc.org/>

<https://euromathsoc.org/committee-developing-countries>

EMS CDC (Committee for Developing Countries)



The screenshot shows the top navigation bar of the European Mathematical Society website. The logo is a blue snowflake-like shape. The main navigation menu includes: News, Inside EMS, Membership, Jobs, Services, Scientific Activities, Publishing House, and Solidarity. A search bar and links for Login and Register are also present. Below the navigation bar, there are tabs for 'View' and 'Content'. The main heading is 'Developing Countries'. The text describes the EMS Committee for Developing Countries (CDC) and its mission to assist developing countries. A link to the 'Committee's website' is provided. A section titled 'Terms of Reference:' follows, containing a list of seven bullet points detailing the CDC's activities and support levels.

European Mathematical Society

Search  [Login](#) [Register](#)

[News](#) [Inside EMS](#) [Membership](#) [Jobs](#) [Services](#) [Scientific Activities](#) [Publishing House](#) [Solidarity](#)

[View](#) [Content](#)

Developing Countries

EMS Committee for Developing Countries assists developing countries in all possible ways, such as developing mathematics curricula, libraries and sources of support funds.

[Committee's website](#)

Terms of Reference:

The EMS Committee for Developing Countries (CDC) will assist developing countries (DCs) at the following levels:

- › Mathematics curriculum development for universities.
- › Cooperation with local staff in conducting MSc and PhD programs; holding special courses in various areas of mathematics in which there is no local expertise.
- › Helping to build up libraries through donations from colleagues in developed countries; supply mathematical literature upon request by institutions and/or individual researchers in DCs; negotiate with publishers on special book rates for DCs.
- › Helping to build up regional centres and networks of excellence: these are centres directly or connected in part to universities, and which provide expertise in areas and on levels in which regional universities are in need.
- › Providing information about where students from DCs (who already have an MSc) can do their PhD, and what possibilities for PhD grants exist. At the same time, in order to avoid a brain drain, as much as possible, CDC will support efforts to build up PhD programmes in DCs according to international standards (regional centres of excellence could serve this purpose).
- › Mobilising funds for junior and senior researchers to attend conferences in developed countries, and also help (both on an academic and financial level) organising conferences in DCs.

<https://nickpgill.github.io/emscdc/about>

The Committee for Developing Countries is a committee of the European Mathematical Society

Aims and Objectives

We aim to assist developing countries in all possible ways. Some examples:

- the development of mathematics curricula;
- cooperation with local staff in conducting M.Sc. and Ph.D. programs;
- helping to build up libraries;
- helping to build up regional centres and networks;
- providing information about further studies for students from developing regions;
- sourcing funds for junior and senior researchers to attend conferences.

<https://nickpgill.github.io/emscdc/about>

ERCE (Emerging Regional Centres of Excellence)

2019-23 : VIASM (Vietnam) ;

2022-25 : AUST (Nigeria), ZLAM (Iran), IMSP (Benin), UCA (Morocco), ITB (Indonesia), INSPEM (Malaysia).

About

Advantages

Criteria

How to apply

ERCE is a label of quality awarding those institutes that show an outstanding level in their own area of influence in research and education, being an attractor of students from other regions and countries. The label is granted for a period of 4 years with possibility of being renewed. The focus of this project is the education of students in the developed world to the Masters level and possibly PhD.

<https://nickpgill.github.io/emscdc/erce>

Previous holders of the ERCE label : ASSMS (Pakistan), UB (Botswana), CIMAT (Mexico).

African University of Science and Technology, Mathematics Institute, Abuja, Nigeria



The African University of Science and Technology (AUST) is a Pan-African institution, established in 2007. AUST in Abuja was the first of these Centers of Excellence to be established. It currently only offers Graduate level programs by a combination of course work and cutting edge research.

More information on the department of mathematics can be found [at their webpage](#).

https://nickpgill.github.io/emscdc/erce_aust

Probability and Statistics, Université Cadi Ayyad



Based in Marrakech, Morocco, this department received the ERCE label in 2016.

More information on the department of mathematics can be found [at their webpage](#).

https://nickpgill.github.io/emscdc/erce_uca

Institut de Mathématiques et de Sciences Physiques, Dangbo, Benin (IMSP)



A l'IMSP, vous étudiez aussi dans un cadre agréable tout au long de votre formation

Based in Dangbo, Benin, IMSP received the ERCE label in 2016.

More information on IMSP can be found [at their webpage](#).

https://nickpgill.github.io/emscdc/erce_imsp

Call for Applications

ERCE 2022-2026

Emerging Regional Centre of Excellence

ERCE (Emerging Regional Centre of Excellence) is a label awarded by the EMS-CDC (European Mathematical Society-Committee of Developing Countries) to centres which have achieved an outstanding level in their area of influence in research and education, thus attracting students from other regions and countries. Indeed, the education of master and PhD students is an asset for raising the quality and diffusion of mathematics worldwide. ERCE centres are among those which play an important role in training students in their region, particularly more students from less developed areas. With the global proliferation of emerging economies worldwide, there are varying degrees of development among developing countries, just as there are within the developed world.

<https://ems.press/journals/mag/articles/16601>

Call for Applications ERCE 2022-2026

Very good centres exist in emerging economies where students from the least developed regions can be trained to the master level and beyond. Indeed, the most talented students may wish to pursue further education after the master's degree and be eligible for a PhD. A higher number of masters and PhDs is an enrichment for any country in terms of human resources with specialised high competence. A full education obtained in one of the outstanding centres in the region is a better guarantee for returning to the original country and as such is an effective way of fighting brain drain, whilst also being cost effective. In this spirit, the first ERCE centre label was awarded in 2011. Since then, several other centres obtained this prestigious recognition.

With the success of this scheme the EMS-CDC is now opening a new call for applications.

<https://ems.press/journals/mag/articles/16601>

EMS Simons For Africa



News Magazine Membership \vee Services \vee Activities \wedge
Scientific Activities Regional Conferences ECM Pr

EMS-Simons for Africa

A program for scientific visits of young and established researchers from the African Continent administered by the EMS Committee for Developing Countries.



<https://euromathsoc.org/ems-simons-africa>

EMS Simons For Africa

The African Continent is very diversified and the development of a career in mathematics faces different and sometimes difficult progression. The Committee for Developing Countries of the EMS, with the support of the Simons Foundation, opens a program of research visits to foster research opportunities for young and established researchers.

The aim is to promote individual career possibilities with consequence of an improved global capacity in African academic institutions. The program is open to all areas of pure and applied mathematics and statistics and it is directed to fellows based in Africa.

<https://euromathsoc.org/ems-simons-africa>



Commission for Developing Countries (CDC)

The CDC has the mandate to manage all initiatives of the IMU in support of mathematics in developing and economically disadvantaged countries.

Besides administering the Grants Programs for Mathematicians as well as the Volunteer Lecture Program, the CDC takes part in the following types of activities in accord with various aspects of its mission :

<https://www.mathunion.org/activities/commission-developing-countries-cdc>

- Research
- Support of local initiatives
- Support of Educational and Local Capacity Building Programs
- Implementation of IMU member contribution programs destined for support of mathematics and mathematics teaching in developing countries.
- Exploration of funding and grant opportunities of new and existing sponsors.
- Development of proposals and joint activities with partner organizations.
- Identification of inexpensive and free online mathematics research resources and advertise these to mathematicians in the developing world.
- Service as a "clearing-house" for the activities of individual countries and mathematics societies in support of mathematicians in the developing world.
- Encouragement of proposals and support projects from mathematical organizations or individual mathematicians in the developing world

In order to pursue its mission CDC receives an annual grant from IMU.

IMU Commission for Developing Countries (CDC)



<https://www.mathunion.org/activities/commission-developing-countries-cdc>

The CDC is charged with the following missions :

- to manage, strengthen and promote the programs of the IMU in developing and economically disadvantaged countries.
- to search for funding to support the corresponding activities.
- to establish institutional partnerships with scientific organizations with common goals.

- About CDC
- Definition for Developing Countries
- News and Events
- CDC Members
- Partners and Support

- Funding opportunities
- Research Travel Grants
- Online Application Form and Online Report Form
- Conference Support Grants
- Project Grants

- Introduction
- CANP
- Graduate Scholarships
- Library Assistance Scheme

- Reports About Mathematics in Developing Countries
- Online Resources
- Institutions Supporting CDC
- Non IMU Grants

<https://www.mathunion.org/cdc/>

IMU CDC (Commission for Developing Countries)



International
Mathematical
Union

IMU

Organization ▾ Membership ▾ IMU Awards ▾ ICM ▾ Activities ▾ Outreach ▾

Activities | Developing Countries (CDC)

Commission for Developing Countries (CDC)

The CDC has the mandate to manage all IMU initiatives in support of mathematics in the developing world and, in particular, to continue the successful work previously carried out by CDE and DSCG.

<https://www.mathunion.org/cdc>



The banner features the IMU logo on the left, which consists of a blue knot-like structure with the text 'INTERNATIONAL MATHEMATICAL UNION' and 'CDC' below it. To the right of the logo is the text 'Commission for Developing Countries' and 'CDC' in large white letters. The background is a dark blue with faint mathematical sketches, including a circle with points A, B, C, D, E and angles θ , ϕ , ρ .

Navigation menu: About CDC ▾ Grants ▾ Lecturing ▾ Scholarships ▾ ICM ▾ Resources ▾

Your search

The CDC has the mandate to manage all initiatives of the IMU in support of mathematics in developing and economically disadvantaged countries. The CDC is charged with the following missions:

to manage, strengthen and promote the programs of the IMU in developing and economically disadvantaged countries.

to search for funding to support the corresponding activities.

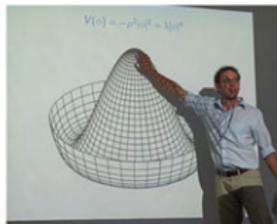
to establish institutional partnerships with scientific organizations with common goals.

<https://www.mathunion.org/cdc>



Graduate Scholarships

- IMU Breakout Graduate Fellowship Program
- GRAID Program



Grants for Mathematicians

- Conference Support Program
- Research Travel Grants
- Project Grants



CDC Activities during ICMs

- ICM Travel Grants
- CDC Panel and Poster Session during the ICM 2018
- MENAO 2014



Lecturing and Mentoring

- Volunteer Lecturer Program
- ADMP
- MARM

<https://www.mathunion.org/cdc>

IMU Volunteer Lecturer Program

<https://www.mathunion.org/cdc/lecturing/volunteer-lecturer-program>

Two main objectives of the Volunteer Lecturer Program are :

1. to build capacity in mathematics and mathematics education in developing countries, and
2. to increase mathematical interaction between the mathematical community in the developed world and the vast, mostly untapped reservoir of mathematical talent in the developing world.

The Volunteer Lecturer Program offers universities in the developing world lecturers for intensive 3-4 week courses in mathematics at the advanced undergraduate or master's level. The funds for all living expenses, including travel (up to USD 5000 paid in EUR) are provided by IMU/ CDC or its supporting organizations (AMS, USNCM and Abel Board).

The course given by the volunteer should be part of a regular mathematics undergraduate or master degree program at the hosting university.

Volunteer Lecturer Program

Volunteer Lecturer Program of the IMU Commission for Developing Countries

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 economical 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).

<https://www.mathunion.org/cdc/lecturing/volunteer-lecturer-program>



Volunteer Lecturer Program

www.mathunion.org/cdc > [Volunteer Lecturer](#) > [Information for Lecturers](#)

[Home](#) | [Contact](#) | [Site Map](#)

About

Grants

Volunteer Lecturer

Information for Lecturers

Information for Universities

VLP Algeria

VLP Cambodia

VLP Benin

VLP El Salvador

VLP Laos

VLP Nigeria

VLP Tanzania

History VLP

Donations to VLP

Related Links

Further CDC Activities

Useful Links

Program Outline and Requirements for Lecturers

We seek mathematicians interested to lecture for intensive 3-4 week courses at universities in the developing world, at the advanced undergraduate or master level in topics such as statistics, differential equations, numerical analysis, etc., the capacity for which is lacking at many universities in developing nations.

The lecturer will be assisted by a local mathematics professor who prepares the students beforehand, assists when necessary during the course, and takes care of any necessary follow-up. These courses should have a student audience of 15-20 or more, be controlled, with examinations, and be part of a regular degree program at the university at which they are offered.

Past experience in the developing world is desirable but not necessary. However what is required is tolerance for working in circumstances of modest resources, unexplained inefficiencies, and limited physical comforts.

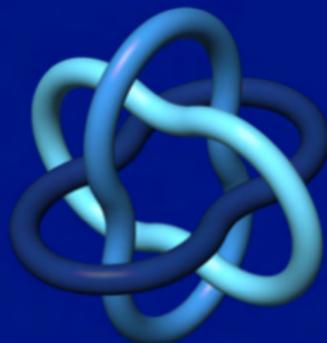


Martha Byrne (USA) in 2010 at Obafemi Awolowo University in Ile-Ife, Nigeria.



Fadmanabhan Seshayer (USA) in 2011 at NIM AIST-Arusha in Tanzania.

IMU Volunteer Lecturer Program (VLP): Mathematics Education as a Tool for International Development



Goals of the IMU VLP

- To build capacity in mathematics and mathematics education in developing countries
- To increase interaction between the mathematical community in the developed world and the mostly untapped mathematical talent in the developing world

Structure

- 3-4 week intensive courses at the upper undergraduate or master's level
- Substantial course enrollment (~ 20 students)
- Support in recruitment of students, scheduling and living arrangements for the volunteer from local host
- All financial costs of the volunteer are covered by the IMU

Breakout Graduate Fellowships

Support for postgraduate studies in a developing country, leading to a PhD degree in the mathematical sciences with duration of up to four years, for excellent students from developing countries.

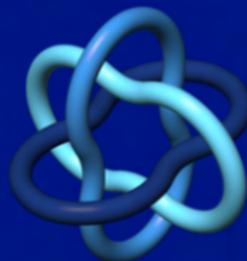
Donation by the winners of the Breakthrough Prizes in Mathematics (Ian Agol, Jean Bourgain, Simon Donaldson, Christopher Hacon, Maxim Kontsevich, Vincent Lafforgue, Jacob Lurie, James McKernan, Terence Tao and Richard Taylor), IMU - with the assistance of FIMU (www.friends-imu.org) and TWAS (<https://twas.org>) - has now raised \$ 900,000.

<https://www.mathunion.org/cdc/scholarshipsgraduate-scholarships/imu-breakout-graduate-fellowship-program>

Graduate Assistantships in Developing Countries (GRAID)



From L-R Angel Pineda, [Wandera Ogana](#), David Sseviiri, Ingrid [Daubechies](#), Edgar [Tchoundja](#)



**The deadline for the most recent call for applications
was March 15, 2022.**

Structure of GRAID

- The Principal Investigator (PI) and International Partner (IP) should be in regular contact and have an active collaboration.
- The PI is responsible for ensuring smooth sustained communication in the Team between, the graduate research assistants and the IP.

Requirements

- PI should live and work in a developing country listed in Priority 1 or 2 of the IMU CDC Definition of Developing Countries.
- IP should not live and work in a developing country listed in Priority 1 or 2 of the IMU CDC Definition of Developing Countries.

GRAID Support

Amount of Support:

- Up to USD 3,500 per student per year.
- Up to 3 graduate research assistantships per team.

Duration of the Support

- Up to 4 years for PhD students
- Up to 2 years for master's students

<https://www.mathunion.org/cdc/scholarshipsgraduate-scholarships/graduate-assistantships-developing-countries>

Supported Teams

Cohort 1 (2017):

- Cameroon + USA (PI: Edgar Tchoundja, IP: Brett Wick)
- Morocco + Spain (PI: Driss Bennis, IP: Luis Oyonarte)

Cohort 2 (2018):

- Uganda + UK (PI: David Ssevviiri, IP: Michael Wemyss)

Cohort 3 (2019):

- Burkina Faso + France (PI: Idrissa Kabore, IP: Nicolas Bedaride)
- Pakistan + Germany (PI: Sarfraz Ahmad, IP: Volkmar Welke)



From L-R Keumo Adriel (student), Edgar Tchoundja (PI), Defo Hugues (student)

Graid cohorts 4 and 5

Cohort 4 (2020)

- Ivory Coast + France (PI : Modeste Nzi, IP : Etienne Pardoux)
- Benin + USA (PI : Romain Giele Kakai, IP : Calistus Ngonghala)
- Nepal + USA (P.I. Kedar Nath Uprety, IP : Naveen K. Vaidya)
- Cameroon + USA (PI : Ngwa Gideon Akumah, IP : Ijang Teboh-Ewungken)

Cohort 5 (2021)

- Congo + France (PI : Basile Bossoto, IP : Christian Maire)
- Philippines + Canada (IP : Aurelio de Los Reyes, IP : Stacey Smith ?)
- Ghana + UK (PI Jefferey Ezearn, IP : Ihechukwu Chinyere)



From L-R : Anjana Pokharel, Naveen K. Vaidya, Uprety Kedar Nath, Khagendra Adhikari, Ramesh Gautam.

Fundraising (Friends of the IMU)

- International Congress of Women Mathematicians (ICWM) 2014
- Donations from members of the American Mathematical Society (AMS) during membership renewals.
- One-time or recurring donations from individual mathematicians.
- Grassroots fundraising activities (i.e. RunForGRAID)

<http://friends-imu.org/graid-donation/>



IMU– CWM

Committee for Women in Mathematics

The remit of CWM is to promote international contacts between national and regional organisations for women and mathematics and to undertake other related activities

The central goal from now until ICM Rio 2018 is to help to establish networks of women mathematicians especially in Asia, Latin America and Africa.

<https://www.mathunion.org/activities/committee-women-mathematics-cwm>

ICTP

ICTP
International Centre for
Theoretical Physics



<https://www.ictp.it/research/math.aspx>

ICTP

Since 1986 the Mathematics section at ICTP has played an important role in fostering mathematics research and education in developing countries. Research is carried out in various fields of Mathematics by the permanent staff, postdocs, and graduate students, as well as by scientific visitors from all over the world.

Typically, the section organizes from 5 to 10 focused activities a year involving an average of 100 participants. These activities are the core of the section's activities and are crucial for disseminating current mathematics knowledge of the highest level as widely as possible.

<https://www.ictp.it/research/math.aspx>

In addition the Mathematics section, like all the other sections at ICTP, participates in the **Diploma program**. Since 2011 Diploma students can apply to stay on to work on a PhD in Mathematics in a joint program with **SISSA**.

The Mathematics section also offers opportunities for postdocs and research fellows; **[click here for latest announcements](#)**.

Once a month, the section organises **The Basic Notions Seminar Series** to broaden the understanding of some mathematical concepts.

<https://www.ictp.it/research/math.aspx>

OPPORTUNITIES



Fellowships

PHD and postdoctoral research fellowships are crucial for building scientific strength in developing countries



Research Grants

Funding helps researchers in the developing world to purchase lab equipment and supplies.



Prizes and Awards

TWAS honours are among the most prestigious given for research in the developing world



Visiting Scientists

Share your projects and your expertise in developing nations as a visiting researcher or professor.

Scientific Meetings

Grants support high-level international and regional scientific meetings in developing countries.

EVENTS AND DEADLINES

30 NOVEMBER 2021

UNTB-TWAS-ICGEB: North-South Biotechnology Policy and Reg...

15 DECEMBER 2021

TWAS-UNESCO Associateship Scheme

<https://twas.org/>

Organization for Women in Science for the Developing World (OWSD)

OWSD PhD Fellowships

This information is also available in: **French** **Spanish**

The Fellowship is offered to women scientists from **science- and technology-lagging countries (STLCs)** to undertake PhD research in the natural, engineering and information technology sciences at a host institute in another developing country in the Global South.

The call for applications is closed.

The next call for applications will open in early 2023.

<https://owsd.net/>

Program Areas

Grants to Individuals

- Simons Investigators
- Simons Fellows
- Collaboration Grants for Mathematicians
- Targeted Grants in MPS
- AMS-Simons Travel Grants 

<https://www.simonsfoundation.org/mathematics-physical-sciences/>

Grants to Institutions

- Simons Institute for the Theory of Computing 
- Targeted Grants to Institutes
- Africa Mathematics Project
- Simons Observatory 
- Simons Array 

MPS-NSF Joint Programs

- NSF-Simons Collaboration on a National Institute for Theory and Mathematics in Biology (NITMB)
- NSF-Simons MathBioSys Research Centers
- NSF-Simons Research Collaborations on the Mathematical and Scientific Foundations of Deep Learning

<https://www.simonsfoundation.org/mathematics-physical-sciences/>

ISP

International Science Programme (ISP) - Uppsala University, Sweden.

The ISP collaboration in different countries can be described as follows :

In the ISP core programs (Chemistry, Mathematics and Physics) through direct collaboration with individual research groups and networks of research groups,

Collaboration through coordination of Sida bilateral research programs with different countries,

Collaboration through separate agreements, with full cost cover from the collaborating partner.

<https://www.isp.uu.se/>

Sida Bilateral Research Cooperation

ISP is assigned by Sida as the coordinating entity for the Swedish activities in all Sida bilateral research programs, namely in Bolivia, Cambodia, Ethiopia, Mozambique, Rwanda, Tanzania and Uganda.

- More about [Sida's research cooperation](#).



SWEDISH INTERNATIONAL
DEVELOPMENT COOPERATION AGENCY

BOLIVIA

Sida bilateral research cooperation with UMSA and UMSS



CAMBODIA

Sida Bilateral Research Cooperation with Royal University of Phnom Penh (RUPP)



ETHIOPIA

Sida Bilateral Research Cooperation with Armauer Hansen Research Institute (AHRI) and Addis Ababa University (AAU)



MOZAMBIQUE

Sida Bilateral Research Cooperation with Universidade Eduardo Mondlane (UEM)



RWANDA

Sida Bilateral Research Cooperation with University of Rwanda



TANZANIA

Sida Bilateral Research Cooperation with ARU, COSTECH, MUHAS and UDSM



UGANDA

Sida Bilateral Cooperation with Makerere University - PROGRAM CONCLUDED



<https://www.isp.uu.se/what-we-do/bilateral-coordination/>

Eastern Africa Universities Mathematics Programme (EAUMP)

The network EAUMP was constituted in 2002 by the Department of Mathematics at Makerere University (Uganda), University of Dar es Salaam (UDSM, Tanzania) and University of Nairobi (UoN, Kenya). A few years later the Departments of Mathematics at University of Rwanda (UR) and University of Zambia (UNZA) also joined the network.

<https://www.isp.uu.se/what-we-do/mathematics/networks/eaump/>

PDE, Modeling and Control

The network was created in 1999 by researchers from the Departments of Mathematics at University Joseph Ki-Zerbo (Burkina Faso), University of Gaston Berger (Senegal) and University of Nouakchott (Mauritania). In 2012 researchers from the Department of Mathematics at University of Science, Techniques and Technology of Bamako (USTTB ; Mali) joined the network. Researchers from the University of Cocody-Abidjan (Ivory Coast) are also members of the network. The network is coordinated by Professor Hamidou Toure, University Joseph Ki-Zerbo.

<https://www.isp.uu.se/what-we-do/mathematics/networks/pde/>

Ethiopia

The Department of Mathematics at Addis Ababa University receives support from the mathematics program to the project Capacity Building in Mathematics

Niger

A research group at Université Abdou Moumouni is a member of the ISP supported network PDE, Modeling and Control.



ROMAN NUMBER THEORY ASSOCIATION



Research
Schools

Nepal
Algebra
Project

Mini Symposia

About us

Conferences

Partners

News & photos

<http://www.rnta.eu/>



Research Schools

- A CIMPA research school on
Isogenies of elliptic curves and their applications to cryptography
Universidad del Cauca
July 24th - August 4th, 2023
- A CIMPA research school on
Introduction to Galois representations and modular forms and their computational aspects
University of the Philippines Diliman
January 2023
- WAMS School
Topics in commutative algebra
University of Sulaimani, Sulaimani, Kurdistan Region, Iraq
September 3rd - 7th 2022
- WAMS School
Topics in algebraic number theory
Salahaddin University, Erbil, Kurdistan Region, Iraq
August 22nd - 28th 2022
- A CIMPA research school on
Algebra, arithmetic and applications
Institut de Mathématiques et de Sciences Physiques, Dangbo, Bénin
June, 12-24 2022
- WAMS School
Lattices, Diophantine Approximation and Heights
Urgench State University, Urgench, Uzbekistan
June 6-10, 2022

APSA Awards

The **Association for the Scientific Promotion of Africa** (APSA) is issuing a call for proposals to finance four research stays for African doctoral students or already confirmed researchers working in Africa in the fields of mathematical, physical or computer sciences.

The winners will spend one to three months in a foreign laboratory of their choice. The programme will be open to researchers from all over Africa but priority will be given to sub-Saharan Africa compared to North or South Africa. It will attach particular importance to gender-balanced recruitment.

APSA will cover, up to a maximum of Euros 5,000 per winner, in complement with the laboratories and host institution, all travel expenses (economy class), visa and subsistence expenses (health insurance, accommodation, per diem) for the winners

<http://www.scienceafrique.fr/apsaawards/>



Groupement d'Intérêt Scientifique – Soutien aux Activités de Recherche en Informatique et Mathématique en Afrique

SARIMA signifie Soutien aux Activités de Recherche en Informatique et Mathématique en Afrique.

SARIMA est un groupement d'intérêt scientifique qui regroupe 20 partenaires.

Son principal objectif est de coordonner les activités de ses membres visant à soutenir la formation et la recherche en informatique et en mathématique en Afrique sub-saharienne.

<http://sarima.edu-math.org/>



Afrique France Réseau International en Mathématiques

AFRIMath est un Réseau International de Recherche du **CNRS** regroupant des mathématiciennes et mathématiciens localisés principalement en Afrique subsaharienne et en France. Ce réseau s'organise autour de quatre thèmes principaux:

- Théorie des nombres et théorie de l'information
- Géométrie et Topologie
- Analyse des EDP, Analyse Numérique
- Probabilités et Statistiques

AFRIMath s'inscrit dans la continuité d'actions entreprises depuis plusieurs décennies, en particulier via le Groupement d'Intérêt Scientifique **SARIMA**.

<http://www.afrimath.math.cnrs.fr/>

Some advices for applicants

You need to browse the internet where you will find a lot of other opportunities.

Write carefully your application ; check that there is no misprint ; correct the spelling.

Write a strong and convincing letter of motivation.



**Politecnico
di Torino**



Dipartimento di
Scienze Matematiche
G. L. Lagrange

ECCELLENZA 2018 • 2022

Cooperazione Matematica in Sud Sudan

September 21, 2022

International cooperation in mathematics:

some examples, including

**CIMPA, EMS - CDC, IMU - CDC,
ICTP, TWAS, OWSD, Simons Foundation,
ISP, RNTA, SEAMS, EMALCA,
APSA, SARIMA, AFRIMath**

Michel Waldschmidt

Professeur Émérite, Sorbonne Université,
Institut de Mathématiques de Jussieu, Paris

<http://www.imj-prg.fr/~michel.waldschmidt/>