





















# THE MARM **PROGRAMME**

The aim of the programme is to enable all mathematicians in Africa to pursue academic careers of the highest standard.

Supporting the development of a vibrant mathematical community within and across Africa should provide a subsequent impact throughout the world of mathematics.

MARM links African academics with their UK and European counterparts via professional mentoring partnerships. In doing so, MARM provides the means and opportunities for African mathematicians to develop international working relationships while also improving the quality of academic provision within their home institutions.

It is believed that enhancing and developing academic research and research institutions in Africa will help ensure that pursuing world-class mathematical careers within Africa will be both achievable and a more attractive option than moving permanently. Over time, the strengthening of the mathematical community across Africa will benefit not only the African community itself, but worldwide mathematics as a whole.

# THE MARM **PARTNERSHIPS**

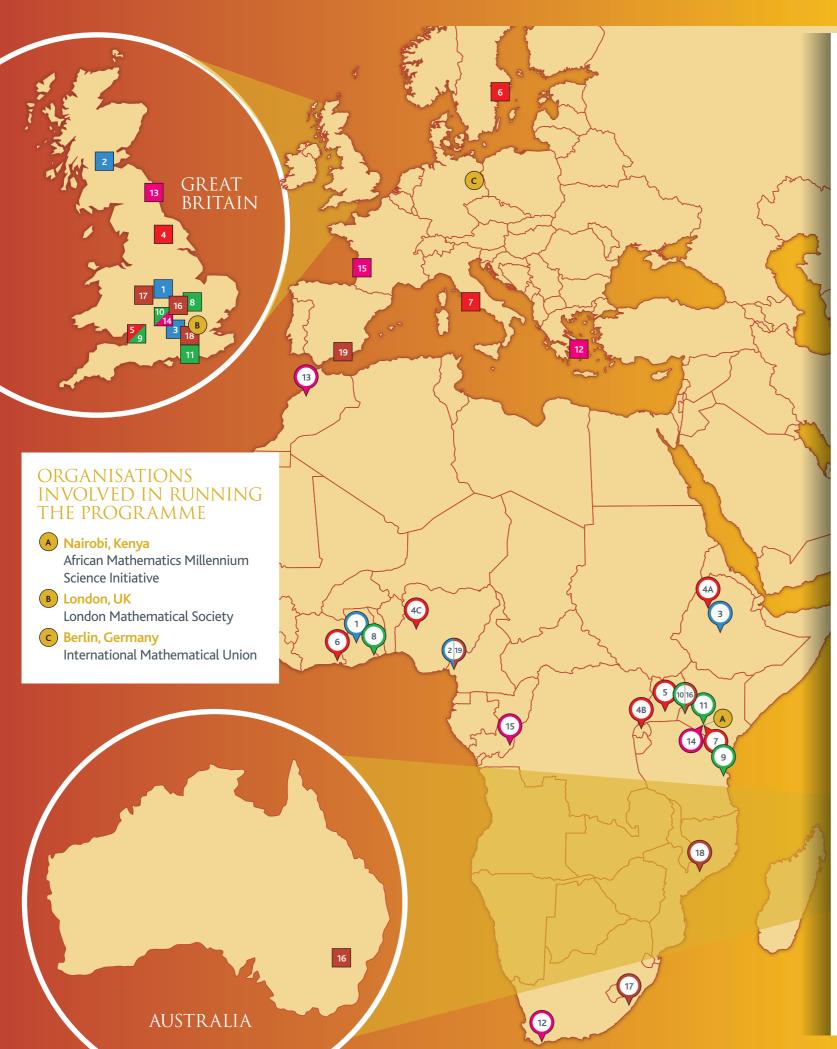
19 partnerships have been awarded to date in: Cameroon, Ethiopia, Ghana, Ivory Coast, Kenya, Malawi, Morocco, Nigeria, Republic of the Congo, Rwanda, South Africa, Tanzania and Uganda.

Each partnership has collaboratively defined its own objectives and priorities specific to the needs of the African institution and its own targeted methods of accomplishing these.

Activities undertaken have included:

- **+** Exchange visits
- **+** Lectures, seminars and workshop series at African institutions
- **♣** Joint PhD supervision
- ♣ Improvements in library and IT resources at African institutions
- **♣** Support for conference attendance (in Africa and internationally)
- ♣ Consultancy and advice on developing postgraduate programmes
- ♣ Mentoring and support for African postgraduate students with respect to wider academic and life skills
- ♣ Mentoring African early career staff in research and other skills
- **→** Working with African university administrators to improve recruitment
- ♣ Improving African departmental structuring
- **→** Working with African institutions to ensure the maintenance of resources for mathematics departments
- ♣ Developing of research contacts and networking

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# MARM IN AFRICA

## ROUND 1 Partnerships

Kumasi, Ghana
Kwame Nkrumah University of
Science and Technology, Ghana
(partnered with University of
Leicester, UK)

1 Leicester, UK
University of Leicester, UK
(partnered with Kwame Nkrumah
University of Science and
Technology, Ghana)

Buea, Cameroon
University of Buea, Cameroon
(partnered with Heriot-Watt
University, UK)

Edinburgh, UK
Heriot-Watt University, UK
(partnered with University of
Buea, Cameroon)

Addis Ababa, Ethiopia
Addis Ababa University, Ethiopia
(partnered with Brunel University, UK)

3 Uxbridge, UK
Brunel University, UK
(partnered with Addis Ababa
University, Ethiopia)

## ROUND 2 Partnerships

Bahir Dar, Ethiopia
Bahir Dar University, Ethiopia
(partnered with University of York, UK)

Kigali, Rwanda
National University of Rwanda,
Rwanda (partnered with University
of York, UK)

Ilorin, Nigeria
University of Ilorin, Nigeria
(partnered with University of York, UK)

York, UK
University of York, UK
(partnered with Bahir Dar University,
Ethiopia; National University of
Rwanda, Rwanda; and University
of Ilorin, Nigeria)

Kampala, Uganda
Makerere University, Uganda
(partnered with University of Bath, UK)

Bath, UK
University of Bath, UK
(partnered with Makerere
University, Uganda)

Abidjan, Ivory Coast
Université de Cocody-Abidjan,
Ivory Coast
(partnered with Stockholm
University, Sweden)

# Stockholm, Sweden Stockholm University, Sweden

(partnered with Université de Cocody-Abidjan, Ivory Coast)

Nairobi, Kenya
Kenyatta University, Kenya
(partnered with Sapienza –
Università di Roma, Italy)

Rome, Italy
Sapienza – Università di Roma, Italy
(partnered with Kenyatta
University, Kenya)

## ROUND 3 Partnerships

Accra, Ghana
University of Ghana, Ghana
(partnered with University of
Cambridge, UK)

Cambridge, UK
University of Cambridge, UK
(partnered with University of Ghana)

Dar Es Salaam, Tanzania
University of Dar Es Salaam, Tanzania
(partnered with University of Bath, UK)

Bath, UK
University of Bath, UK
(partnered with University of
Dar Es Salaam, Tanzania)

Maseno University, Kenya (partnered with University of Oxford, UK)

Oxford, UK
University of Oxford, UK (partnered with Maseno University, Kenya)

Nairobi, Kenya
University of Nairobi, Kenya
(partnered with University of
Sussex, UK)

Brighton, UK
University of Sussex, UK
(partnered with University of Nairobi, Kenya)

# ROUND 4 PARTNERSHIPS

Cape Town, South Africa
University of Cape Town, South Africa
(partnered with Athens University
of Economics and Business, Greece)

Athens, Greece
Athens University of Economics
and Business, Greece
(partnered with University of
Cape Town, South Africa)

Rabat, Morocco
Université Mohamed V-Agdal, Morocco
(partnered with Newcastle
University, UK)

Newcastle, UK
Newcastle University, UK
(partnered with Université
Mohamed V-Agdal, Morocco)

Nairobi, Kenya
University of Nairobi, Kenya
(partnered with University
of Oxford, UK)

Oxford, UK
University of Oxford, UK
(partnered with University
of Nairobi, Kenya)

Brazzaville, Congo
Marien Ngouabi University, Congo
(partnered with Université
de Bordeaux, France)

15 Bordeaux, France
Université de Bordeaux, France
(partnered with Marien Ngouabi
University, Congo)

## ROUND 5 Partnerships

Moi University, Kenya
(partnered with University of
South Wales, Australia, and the
Open University, UK)

South Wales, Australia, and the UK
University of South Wales,
Australia, and the Open University, UK
(partnered with Moi University, Kenya)

WwaZulu-Natal, South Africa
University of KwaZulu-Natal,
South Africa
(partnered with the University
of Birmingham)

Birmingham, UK
University of Birmingham, UK
(partnered with the University
of Kwazulu-Natal, South Africa)

Zomba, Malawi
University of Malawi, Malawi
(partnered with Imperial
College, London)

London, UK
Imperial College, London
(partnered with the University
of Malawi, Malawi)

Douala, Cameroon
University of Douala, Cameroon
(partnered with the University
of Malaga, Spain)

Malaga, Spain
University of Malaga, Spain
(partnered with the University
of Douala, Cameroon)















# WHAT MARM HAS ACHIEVED

From a relatively low-level investment, the outcomes of MARM have been substantial:

- Directly led to the leveraging of external funds into the National Institute of Mathematical Science at Kwame Nkrumah University of Science and Technology, Ghana
- Supported the Kenyatta University International Mathematics Conference series and the International Conference on Mathematics and its Applications, encouraging networking and attracting international speakers to the continent
- Development of the next generation of African mathematicians via supervision and support for postgraduate students
- ◆ Lasting improvements to a number of higher education facilities
- Fundamental institutional improvements including improved and enhanced academic curricula and departmental organisation and resourcing
- **★** Joint publications by European and African Researchers

# HOW CAN YOU BE INVOLVED?

The LMS wants to build upon the extensive work and successes already achieved by the MARM programme. We are looking for new sponsorship to both continue and expand the mentoring partnerships. With more funds we can increase the grants available to partnerships and extend the length, thus enabling the partnerships to develop further and more deeply.

With available funding there are other opportunities that we would welcome the opportunity to explore such as:

- ★ Web-based learning and its implications at both undergraduate and postgraduate level
- ♣ Masters level education including courses, teaching and student mentoring – and its contributions to the academic pipeline in Africa
- ♣ Postgraduate scholarships in Africa to support academic needs from postgraduate education to conference attendance
- ◆ International conference series in Africa developing the foundations already laid and taking these to world class level

We would welcome further discussion on how best the programme can be developed and funding maximised.

www.lms.ac.uk/mentoring-african-research-mathematics-marm







## MARM PARTNERS

### **ROUND 1**

**Dr Frank Neumann**, University of Leicester and **Professor Isaac K. Dontwi**, Kwame Nkrumah University of Science and Technology

Professor Sergey Mikhailov, Brunel University and Dr Tsegaye Gedif Ayele, Addis Ababa University

Professor Sergey Foss, Heriot-Watt University and Professor Gideon A. Ngwa, University of Buea

### ROUND 2

Professor Sanju Velani, University of York and Professor Verdiana Masanja, National University of Rwanda

**Professor Gregory Sankaran**, University of Bath and **Dr Juma Kasozi**, Makarere University

**Professor Nigel Cutland**, University of York and **Dr Habtu Zegeye**, Bahir Dar University

**Dr Brent Everitt**, University of York and **Professor Mathias Bamigbola**, University of Ilorin

Professor Enrico Rogora, Sapienza – Università di Roma and Dr David M. Malonza and

Professor Leo Odongo, Kenyatta University

Professor Mikael Passare, Stockholm University and Professor Modeste N'Zi, Université de Cocody-Abidjan

#### ROUND 3

**Dr Maciej Dunajski**, University of Cambridge and **Dr Margaret McIntyre**, University of Ghana

**Dr Balazs Szendroi**, University of Oxford and **Dr David Stern**, Maseno University

**Dr Anotida Madzavamuse**, University of Sussex and **Professor Richard Simwa** and

Dr James Nkubi Katende, University of Nairobi

**Dr Ben Adams**, University of Bath and **Professor E.S. Massawe**, University of Dar es Salaam

### ROUND 4

**Dr Panagiotis Besbeas**, Athens University of Economics and Business and

Dr Res Altwegg, University of Cape Town

Professor Michael Dritschel, Newcastle University and Professor Omar El Fallah and Professor Nouzha El Yacoubi, Université Mohammed V-Agdal

**Dr Balazs Szendroi**, University of Oxford and **Dr Damian Maingi**, University of Nairobi

Professor Alain Yger, Université de Bordeaux and Professor Basile Bossoto, Marien Ngouabi University

#### ROUND 5

Dr Nick Gill, University of South Wales, and Dr Ian Short, The Open University, and Dr Fredrick Nyamwala Oluoch, Moi University

Professor Sergey Shpectorov and Dr Kay Maagard, University of Birmingham, and Professor Bernardo Rodrigues, University of KwaZulu-Natal

**Dr Ambrus Pál**, Imperial College, London, and **Dr Patrick Ali**, University of Malawi

Benjamín Olea Andrades, University of Malaga, and Ferdinand Ngakeu, University of Douala

The Mentoring African Research in Mathematics (MARM) programme has been running since 2006 with original funding from the Nuffield Foundation and the Leverhulme Trust.

The London Mathematical Society's current MARM programme is sponsored by the London Mathematical Society and the International Mathematical Union (IMU) in association with the African Mathematics Millennium Sciences Initiative (AMMSI).

The members of the MARM Board are: John Ball (Oxford), Herbert (Charles) Clemons (Ohio State), Stephen Huggett (Plymouth), Frank Neumann (Leicester) and Wandera Ogana (Nairobi). Please direct any questions on the MARM programme to MARM@lms.ac.uk.