

SOUTHERN AFRICA MATHEMATICAL SCIENCES ASSOCIATION (SAMSA)

THE SAMSA MASAMU PROGRAM

The Second US-Africa Advanced Institute and Workshop Series in Mathematical Sciences is scheduled to be held on 29th November – 12th December 2012 in Lilongwe, Malawi.

Background

The primary goal of the Masamu Program is to enhance research in mathematical sciences within Southern Africa Mathematical Sciences Association (SAMSA) institutions through promotion of international research collaboration. A key component of the Masamu Program is the Advanced Study Institute and Workshop Series in Mathematical Sciences that provides a platform for such collaboration. The target audiences of the Advanced Study Institute are graduate students and early career faculty (rank less than associate professor) while the workshops are open to students, faculty, and other researchers in the mathematical sciences. The second Masamu US-Africa Advanced Study Institute and Workshops Series will be held November 29 - December 12, 2012 in Lilongwe, Malawi starting towards the end of the SAMSA 2012 conference.

US-Africa Advanced Study Institute on Algebra, Discrete Mathematics, and Applications

November 30 - December 10, 2012: The first five days are devoted to reviewing background material on number theory, cryptography, coding theory, graph theory, linear algebra, rings, fields, finite geometry, commutative algebra, algorithmic algebra, and requisite mathematical software. The last five days will consist of research lectures and intense group research activities on new and emerging topics in algebra, discrete mathematics, and its applications. Each group will develop a research topic before the end of the institute. In subsequent months, participants will prepare research grant proposals, collaboratively work on these research topics, and prepare to present their results at the SAMSA 2013 conference. The institute has a limited number of spaces and is open only to graduate students and early career faculty.

US-Africa Research Workshop on Mathematics of Information: Coding theory, Networks, and Cryptography

December 10 – December 12, 2012: The workshop will consist of five half-day presentations of the research programs of experienced researchers in mathematical sciences with extended follow-up discussion periods. The workshop is open to all graduate students, early career faculty, and senior scientists. Participants of the institute are required to attend the workshop.

Career Development Workshop

November 29, 2012: The workshop will give participants an opportunity to discuss issues relevant to early career faculty such as publishing, balancing teaching and research, and effective teaching strategies.

Department Heads, Chairs and Senior Research Scientists Workshop

November 29, 2012: This will focus on cultivating sustained cooperation between and among United States and sub-Saharan mathematical sciences departments and the role that heads and chairs can play in nurturing early career/junior research faculty.

Institute and Workshop Organizers

Chiteng'a John Chikunji (Botswana College of Agriculture, Botswana)

Peter Dankelmann (University of Johannesburg, South Africa)

David Erwin (University of Cape Town, South Africa)

James Hirschfeld (University of Sussex, UK)

Overtoun Jenda (Auburn University, USA)

Peter Johnson (Auburn University, USA)

Edward Lungu (University of Botswana, Botswana)

Sure Mataramvura (University of Cape Town, South Africa)

Alfred Menezes (University of Waterloo, Canada)

John Ryan (Mzuzu University, Malawi)

Michel Smith (Auburn University, USA)

Abdul-Aziz Yakubu (Howard University, USA)

Masamu Program Steering Committee

Ash Abebe (Auburn University, USA)

Overtoun Jenda (Auburn University, USA)

Moatlhodi Kgosimore (Botswana College of Agriculture, Botswana)

Edward Lungu (University of Botswana, Botswana)

Anotida Madzvamuse (University of Sussex, UK)

Sure Mataramvura (University of Cape Town, South Africa)

Farai Nyabadza (Stellenbosch University, South Africa)

Michel Smith (Auburn University, USA)

Financial Support: Subject to availability of funding

Computing

Some courses will incorporate computing and participants are required to bring laptop computers. Participants will receive copies of software and other course material when they arrive at the institute.

Lodging

All participants will be housed at the Malawi Institute of Management (MIM), Lilongwe, Malawi.

Information

Frequently Asked Questions can be found at <https://www.masamu.auburn.edu/FAQ.aspx>

Application

Deadline for receipt of applications is *Friday, August 17, 2012*.

To apply for the Advanced Study Institute and the Research Workshop, please submit via email:

1. A letter of interest (indicating whether you plan to attend the first five days, or last five days, or both),
2. An updated curriculum vitae,
3. Academic transcripts and certificates, and
4. Two letters of recommendation, at least one of which must be from the **supervisor** or **mentor** addressing the candidate's academic strengths and potential. Recommendation letters should be emailed directly to addresses listed below by those writing letters of support.

The Masamu Program will cover the cost of air travel and accommodation for the Institute and Research Workshop for the selected applicants.

African applicants should email their complete applications to:

Dr. Moatlhodi Kgosimore, Department of Basic Sciences, Botswana College of Agriculture

Phone: +267 3650277 Fax: +267 3928753

Email: mkgosi@bca.bw, kgosimor@gmail.com

US applicants should email their complete applications to:

Dr. Ash Abebe, Department of Mathematics and Statistics, Auburn University

Phone: 334-844-6567 Fax: 334-844-6555

Email: abebeas@auburn.edu

Please apply promptly since the number of participants in the institute is very limited. Women and minorities are encouraged to apply.

For those who plan to attend only the Research Workshop for Department Heads, Chairs and Senior Research Scientists, please register at <https://www.masamu.auburn.edu/register>

For general inquiries about the Masamu Program, use the contact information provided below.

Africa:

Dr. Edward Lungu, The Masamu Program, Department of Mathematics, University of Botswana, Gaborone, Botswana (lunguem@mopipi.ub.bw, lunguliz@gmail.com)

Europe:

Dr. Anotida Madzvamuse, The Masamu Program, Department of Mathematics, University of Sussex, Brighton BN1 9QH, UK (A.Madzvamuse@sussex.ac.uk)

USA:

Dr. Overtoun Jenda, The Masamu Program, Auburn University, 103 M.W. Smith Hall, 381 Mell Street, Auburn, AL 36849-5168, USA (jendaov@auburn.edu)