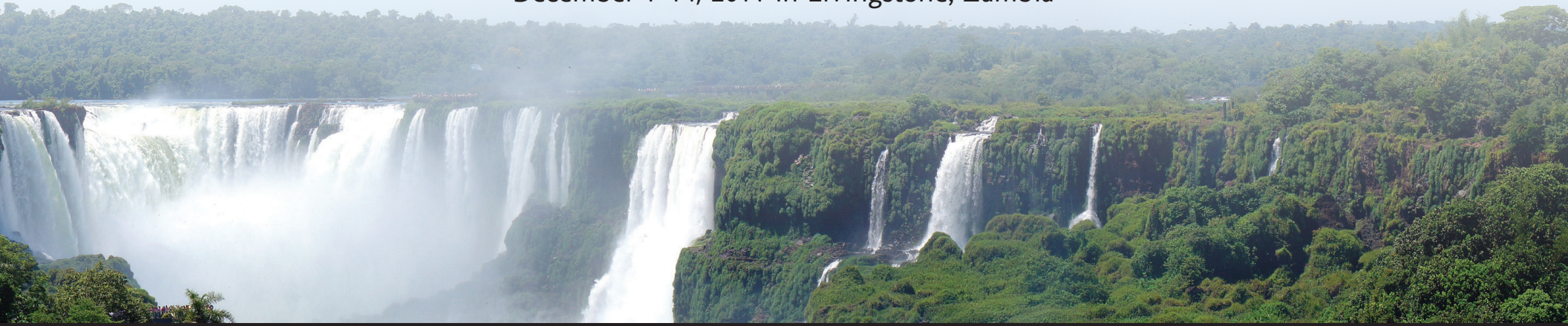


# THE SAMSA MASAMU PROGRAM

December 1-14, 2011 in Livingstone, Zambia



## THE FIRST MASAMU ADVANCED STUDY INSTITUTE AND WORKSHOPS IN MATHEMATICAL SCIENCES

December 1 - 14, 2011  
Livingstone, Zambia

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 first Masamu Advanced Study Institute and Workshops will be held December 1 – 14, 2011 in Livingstone, Zambia at the end of the 2011 SAMSA conference.

**US-Africa Advanced Study Institute on Analysis, Dynamical Systems, and Mathematical Biology**, December 2 –12, 2011: The first five days are devoted to reviewing background material on analysis, linear algebra, dynamical systems, mathematical biology, and requisite software. The last five days will consist of research lectures and intense group research activities on new and emerging topics in mathematical modeling of biological systems. 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 2012 SAMSA conference. The institute has a limited number of spaces and is open only to graduate students and early career faculty. Participants who are familiar with the background material may choose to participate during the last five days only.

**Research Workshop on Mathematical Modeling of Biological Systems**, December 12 –14: It 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**, December 1: 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**, December 1: This will focus on cultivating sustained cooperation between and among United States and Southern African mathematical sciences departments and the role that heads and chairs can play in nurturing early career/junior research faculty.

## INSTITUTE AND WORKSHOP ORGANIZERS

Bruce Ayati (University of Iowa, USA)  
Geraldo De Souza (Auburn University, USA)  
Suzanne Lenhart (University of Tennessee, USA)  
Edward Lungu (University of Botswana)  
Anotida Madzvamuse (University of Sussex, UK)  
A. J. Meir (Auburn University, USA)  
Robert Smith? (University of Ottawa, Canada)  
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)  
Edward Lungu (University of 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:** With generous funding from the US National Science Foundation (NSF) under Grant No. 1050259, full financial support (travel, lodging, meals) is available to US and African graduate students and early career faculty to participate in the Advanced Study Institute and the Research Workshop. To qualify for this funding, **African applicants** must currently reside within sub-Saharan Africa and **US applicants** must be US citizens, nationals, or permanent residents.

**COMPUTING:** Most 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 New Fairmount Hotel in Livingstone, Zambia.

**INFORMATION:** For more information, please visit the Masamu Program website <https://masamu.auburn.edu>. For details on the 2011 Advanced Study Institute and Research Workshop, please contact Dr. A. J. Meir ([ajm@auburn.edu](mailto:ajm@auburn.edu)), Dr. E. Lungu ([lunguem@mopipi.ub.bw](mailto:lunguem@mopipi.ub.bw)), and Dr. A. Madzvamuse ([A.Madzvamuse@sussex.ac.uk](mailto:A.Madzvamuse@sussex.ac.uk)).

**APPLICATION:** Deadline for receipt of applications is *Thursday, July 28, 2011*.

For those who plan to attend only the Research Workshop on Mathematical Modeling of Biological Systems or the Department Heads, Chairs and Senior Research Scientists Workshop, please register at <https://masamu.auburn.edu/register>.

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

1. A letter of interest (and indicating whether you plan to attend the first five days, or last five days, or both),
2. A curriculum vitae, and
3. Two letters of recommendation, at least one of which must address the candidate's academic strengths and potential.

## African applicants should mail their complete applications to:

Dr. Moatlhodi Kgosimore  
Department of Basic Sciences  
Botswana College of Agriculture  
Private Bag 0027  
Gaborone, Botswana  
Phone: +267 3650277 Fax: +267 3928753  
Email: [mkgosi@bca.bw](mailto:mkgosi@bca.bw), [kgosimor@gmail.com](mailto:kgosimor@gmail.com)

## US applicants should mail their complete applications to:

Dr. Ash Abebe  
Department of Mathematics and Statistics  
Auburn University  
221 Parker Hall  
Auburn, AL 36849-5310  
USA  
Phone: 334-844-6567 Fax: 334-844-6555  
Email: [abebeas@auburn.edu](mailto:abebeas@auburn.edu)

Preference will be given to applicants who attend both parts of the Advanced Study Institute. Please apply promptly since the number of participants in the institute is very limited. Women and minorities are encouraged to apply.

**FOR GENERAL INQUIRIES** about the Masamu Program, use the contact information provided below.

## Sub-Saharan Africa:

Dr. Edward Lungu, The Masamu Program, Department of Mathematics, University of Botswana, Gaborone, Botswana ([lunguem@mopipi.ub.bw](mailto:lunguem@mopipi.ub.bw))

## UK:

Dr. Anotida Madzvamuse, The Masamu Program, Department of Mathematics, University of Sussex, Brighton BN1 9QH, UK ([A.Madzvamuse@sussex.ac.uk](mailto: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](mailto:jendaov@auburn.edu))

Activities of the Masamu Program are organized by Auburn University, SAMSA, and the University of Sussex.

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