

# THE SAMSA MASAMU PROGRAM

November 16-25, 2017, in Arusha, Tanzania

**THE SEVENTH MASAMU ADVANCED STUDY INSTITUTE (MASI) AND WORKSHOPS IN MATHEMATICAL SCIENCES:** The primary goal of the Masamu Program ([masamu.auburn.edu](http://masamu.auburn.edu)) is to enhance research in mathematical sciences within Southern Africa Mathematical Sciences Association, or SAMSA, ([samsa-math.org](http://samsa-math.org)) 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 provide a platform for such collaboration. The target audiences of the Masamu Advanced Study Institute are undergraduate and graduate students, post-docs, and early career faculty, while the workshops are open to all students, faculty, and other researchers in mathematical sciences. The seventh Masamu Advanced Study Institute and Workshops will be held November 16-25, 2017, in Arusha, Tanzania, during the 2017 SAMSA conference.

**Masamu Advanced Study Institute (MASI) on Algebra, Analysis, Coding Theory, Graph Theory, Mathematical Modeling of Biological Systems, Mathematics of Finance, and Statistics, and Research Workshop, November 17-25:** During the institute, participants will work in teams on problems and promising techniques and develop plans for future collaboration. Teams will be led by research faculty members from the US-Africa Collaborative Research Network. Participants will be provided materials for them to review before coming to the institute. Each team will work on specific research topics during the institute. In subsequent months, participants will continue to collaboratively work on these research topics, prepare research grant proposals, and prepare research publications and presentations for conferences including the 2017 SAMSA conference. The institute is led by senior research faculty from the US-Africa Collaborative Research Network in Mathematical Sciences and has a limited number of spaces for undergraduate and graduate students, post-docs, and early career faculty (rank lower than associate professor). All participants of the institute are required to attend the Research Workshop that will be held immediately after the institute.

The research workshop to be held on November 25 will consist of presentations and discussion of the research work accomplished at the institute.

**High Performance Computing (HPC) Workshop, November 19 – 24:** The workshop will consist of presentations and discussion by HPC experts and research mathematicians from Africa, Europe, and US, with the goal of creating an HPC research group in the US-Africa Collaborative Research Network in Mathematical Sciences.

**MASI and SAMSA conference participants are encouraged to register for the following other Masamu Workshops, November 21-23:**

**2<sup>nd</sup> Annual STEM Education Workshop, November 21-23:** The workshop will examine and discuss current evidence-based models, best practices, and strategies for increasing the quantity and quality of undergraduate and graduate degrees for students in Science, Technology, Engineering, and Mathematics (STEM) disciplines, with the goal of forming a STEM Education research group in the US-Africa Collaborative Research Network in Mathematical Sciences.

**Career Development Workshop, November 23:** The workshop will give participants an opportunity to discuss issues relevant to graduate students, post-docs, and early career faculty such as graduate school survival skills, publishing, balancing teaching and research, and effective teaching strategies.

**Department Heads, Chairs, and Senior Research Scientists Workshop, November 23:** This will focus on cultivating sustained cooperation between and among United States and Southern African Mathematical Sciences departments and the role that heads, chairs and senior research scientists can play in nurturing early career/junior research faculty.

## MASAMU PROGRAM STEERING COMMITTEE:

1. Ash Abebe (Auburn University, USA)
2. Overtoun Jenda (Auburn University, USA), Co-Chair
3. Moatlhodi (Archie) Kgosi (Botswana University of Agriculture and Natural Resources)
4. Suzanne Lenhart (University of Tennessee, USA)
5. Edward Lungu (Botswana International University of Science and Technology), Co-Chair
6. Anotida Madzvamuse (University of Sussex, UK)
7. Sure Mataramvura (University of Cape Town, South Africa)
8. A.J. Meir (Southern Methodist University, USA)
9. Egbert Mujuni (University of Dar es Salaam, Tanzania)
10. Farai Nyabadza (Stellenbosch University, South Africa)
11. Abdul-Aziz Yakubu (Howard University, USA)

**COMPUTING:** Sessions will incorporate computing or file sharing and thus participants are expected to bring tablets or laptop computers with a USB port.

**LODGING:** Participants will be housed at the same hotel in Arusha, Tanzania.

**APPLICATION:** To request an invitation to participate in the Masamu Program, please complete the online application form at the link <https://goo.gl/forms/XU8tR9EfEBBGA7oS2> as soon as possible but before Tuesday, August 1, 2017. You can also reach the application form through the 2017 Masamu Program website at <https://masamu.auburn.edu/pm/masamu2017>.

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.

**Africa:** Dr. Edward Lungu, Department of Mathematics and Computational Sciences, Botswana International University of Science and Technology, Palapye, Botswana  
Email: [lunguliz@gmail.com](mailto:lunguliz@gmail.com)

**USA:** Dr. Overtoun Jenda, Special Projects and Initiatives, Auburn University, 2150 Mike Hubbard Blvd, Auburn, AL 36830 USA  
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Activities of the Masamu Program are organized by Auburn University and SAMSA.

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