

SAMSA e-bulletin

Your newsletter promoting research and mentoring of academics in Southern Africa



In this Issue

Message from the President	1
Meet SAMSA New Executive	2
Join SAMSA Today	2
Message from the Editorial Desk	2
Report on the 2018 SAMSA Conference	3
Research and Funding	3
Upcoming Conferences Workshops	3
Kovalevskaiia Research Grant Award	4
Student Presentation Awards	5



ABOVE : Delegates at 2018 SAMSA conference plenary talk.

Message from the President

Dear SAMSA Members,

It gives me great pleasure to welcome you to the first SAMSA newsletter of the year 2019. The purpose of the SAMSA newsletters is to share information about the past and future activities of SAMSA. We also welcome articles and announcements from other associations with which we share the common interest of promoting Mathematical Sciences.

This newsletter introduces the new SAMSA executive members that were elected at the 37th annual SAMSA conference that was held in Botswana on 19 - 22 November 2018 at the Botswana International University of Science and Technology. A report on the conference is presented in this newsletter. The 38th SAMSA conference will be hosted by the Malawi University of Science and Technology (MUST) with co-hosts University of Malawi (UNIMA) Lilongwe University of Agriculture and Natural Resources (LUANAR), Mzuzu University (MZUNI) and Catholic University of Malawi (CUNIMA) in Blantyre, Malawi from the 25th to the 28th of November 2019. Future updates about this conference will be communicated via the SAMSA website [link](#) and the conference website that will be setup soon.

I would like to take this opportunity to thank the new editorial team led by Joseph Malinzi and Precious Mlongwa for their efforts in putting together this edition of the SAMSA newsletter. Please forward contributions to future newsletters to the editorial team. For news snippets and announcements, we urge you to regularly visit our website or connect with us on our social media sites.

Prof. S. S. Motsa
SAMSA President

Meet the new SAMSA executive committee 2019-2020

Contact information of members of the new executive committee that were elected at the 37th annual SAMSA conference at Botswana International University of Science & Technology, Botswana in November 2018



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Join SAMSA Today

SAMSA is an organisation which is devoted to promote cooperation and exchange of ideas in mathematical sciences research and teaching of mathematical sciences and to stimulate communication between mathematical scientists in the region and beyond. We believe you share this vision with us and your membership is important to the advancement of this goal. Join SAMSA today and be part of the many exciting programs and benefits associated with being a member in 2019. The subscription for new members in 2019 is as follows: students, **USD10**, staff, **USD20** and institutions, **USD240**. Please contact Dr Farai Chirove (SAMSA treasurer) on chirovef@ukzn.ac.za to subscribe. To know more about the member benefits [click here](#).

Dr. F. Chirove
SAMSA Treasurer

Message from the Editorial desk

Dear Readers,

Belated compliments of the new season and welcome back from Botswana for those who attended the SAMSA 2018 conference. Our mandate is to provide updates on endeavors conducted by SAMSA, achievements attained thus far, as well as announcements of upcoming activities related to SAMSA. We hope to include funding and job opportunities in the 2019 issues. It is therefore imperative that you share with us any opportunities that you come across using our social media platforms. Remember to follow SAMSA on Twitter [click here](#) and like our Facebook page [click here](#).

Please do send us your thoughts, news, articles and queries-if any, through the social media platforms or write to the editorial team at: Josephmalinzi1@gmail.com and mdlonwaprec@gmail.com

J. Malinzi & P. Mdlongwa
Editors

2018 SAMSA Conference Report

The 37th SAMSA conference was held at the Botswana International University of Science and Technology (BIUST) Campus in Palapye, Botswana on 19 - 22 November 2018, under the theme "Mathematical Sciences: A Catalyst in Driving a Knowledge-Based Economy". The conference was jointly organized by the BIUST, University of Botswana (UB), and Botswana University of Agriculture and Natural Sciences (BUAN). The conference was endorsed by the highest office in the Botswana government. His Excellency, the President of The Republic of Botswana, Dr Mokgweetsi Eric Keabetswe Masisi officially opened the conference and invited SAMSA to promote the use of Mathematics to innovate and trade in knowledge. The conference was graced by many high government officials, including the Minister of Tertiary Education, Research Science and Technology, Assistant Minister of Tertiary Education, Research Science and Technology, Assistant Minister of Investment Trade and Industry, Serowe and Palapye chiefs, Members of the University Councils, Vice Chancellors of local universities, Chief Executive Officers and representatives from the private sector, to mention just a few. SAMSA is grateful for the generous support from the sponsors, without whose support the event would not have been possible. Financial support was received from Auburn University, Liberty Life, African Mathematics Millennium Science Initiative, International Mathematics Union and London Mathematical Society and Research and Graduate Studies in Mathematics and its applications (RGSMA) based at BIUST. We also acknowledge and appreciate the contribution by the attendees, presenters, volunteers, scientific committee, keynote speaker: Prof. A. Gumel (Arizona State University, USA), and the plenary speakers: Prof. F.J. Vermolen (Delft Technical University, The Netherlands), Prof. T. Dube (University of South Africa, South Africa), Prof. C. Chidume (African University of Science and Technology, Nigeria), Prof. T. Goetz (University of Koblenz, Germany), Mrs. T. Beardon (AIMSSEC, South Africa, and University of Cambridge, UK), Dr. J. White (University of Bath, UK), Prof. K. Aase (The Norwegian School of Economics, Bergen- Norway), Prof. S. Manda (South African Medical Research Council) and Prof. A.J. Menezes (University of Waterloo, Canada). As part of the conference, two public lectures were presented by Prof. A. F. Beardon (Probability and the law) and Prof. A.J. Menezes (Public-Key Cryptography). Alongside the SAMSA conference, SAMSA also hosted: the 2018 Masamu Advanced Study Institute (MASI) and workshop; a two-day workshop for secondary school teachers from within Botswana which was held in conjunction with the Ministry of Basic Education and Mathematics Association of Botswana; a workshop for Women in Mathematics organized by the African Mathematics Union Commission for African Women in Mathematics; a two-day workshop for post graduate students organized by RGSMA. The 2018 edition of the SAMSA annual conferences attracted over 205 delegates including over 80 students representing at least 25 different countries from African continent, Europe and North America.

By Dr. J. H. Njagarah
SAMSAs Secretary General

Research and conference funding

- ◆ DAAD Regional Office for Africa [click here](#)
- ◆ African Institute for Mathematical Sciences [click here](#)
- ◆ MasterCard Foundation Scholarships [click here](#)
- ◆ CIMPA [click here](#)
- ◆ International Centre for Theoretical Physics [click here](#)
- ◆ International Council for Industrial and Applied Mathematics (ICIAM) [click here](#)
- ◆ IMU-Simons African Fellowship Program [click here](#)
- ◆ Two PhD Positions at SISSA, Trieste [click here](#)

Upcoming Conferences | Workshops | Summer Schools

- ◆ SANUM 2019 [click here](#)
- ◆ BIOMATH 2019 [click here](#)
- ◆ 2019 EAUMP-ICTP/SMR3310 Summer School on algebraic topology and its applications(Topological Data Analysis) [click here](#)
- ◆ 5th Strathmore International Mathematics Conference (SIMC 2019) [click here](#)
- ◆ The Psychology in Mathematics Education (PME) conference [click here](#)
- ◆ 34th Summer Conference on Topology and its Applications [click here](#)

2018 Kovalevskaia Research Grant Award winners

2018 Kovalevskaia Award winners. From the left: **Fadekemi Janet Osanye** and **Dr. Sarudzai Portia Showa**. Each received a grant valued at US\$ 2, 5000 for outstanding research.



Fadekemi Janet Osanye

She recently submitted her PhD thesis titled 'Distance measures in graphs' under the supervision of Professor Peter Dankelmann and Co-supervision of Professors Simon Mukwembi and Bernado Rodriguez at the University of Johannesburg. In 2015 she completed a research masters at the University of KwaZulu-Natal with Summa Cum Laude and S2A3 award for the best master dissertation in a scientific domain in 2015. When we contacted her after the award ceremony, Janet had the following words to say: 'My sincere appreciation to the sponsors and organizers for selecting me for the award. To fellow women in science, with hard work, perseverance and dedication it is always possible to achieve the best'

Dr Sarudzai Portia Showa

Dr Sarudzai Portia Showa is a senior lecturer at the National University of Science and Technology (NUST), Zimbabwe. She graduated, in the year 2016, with a PhD in Applied Mathematics. Her research focuses on HIV infection dynamics using ecological modelling. She has published 5 research articles in leading Mathematical Biology journals. An additional two articles have been communicated to journals and are currently under review. Dr Showa is a beneficiary of a PhD fellowship that was extended to her by the Organisation for Women in Science for the Developing World (OWSD). Her MSc study was funded by The Norwegian Programme for Development, Research and Education (NUFU). She has also been a recipient of the London Mathematical Society- African Mathematics Millennium Science Initiative (LMS-AMMSI) Conference Travel Grant. Dr Showa is actively involved in encouraging young girls to study Mathematics and appreciate its role in societies and in the STEM field.

"I am greatly honored to have received the Kovalevskaia award and grateful for the recognition I have received for my work. Thank you SAMSA panel for selecting me for this prize. The award is an invaluable contribution to my research career. To upcoming women surround yourself with people with same vision as yours, the impossible becomes possible. I would also like to thank my PhD supervisors: Prof. F. Nyabadza, Prof. S.D. Hove-Musekwa and Prof. G. Magombedze," Showa said.

For more information on the Kovalevskaia Research Grant Awards [click here](#)

Student Poster Presentation SAMSA 2018 Winners

First Prize winner

Maduo Mopipi (co-authors : Thato Phologolo & N Subaschandar), BIUST, Botswana.

Topic: Study of Effect of Slant Angle on Drag Coefficient Of An idealized Road Vehicle

Second Prize Winner

Annah Motoi (co-author Sachin Shaw), BIUST, Botswana.

Topic: Dispersion characteristics of blood during drug delivery through a micro vessel.

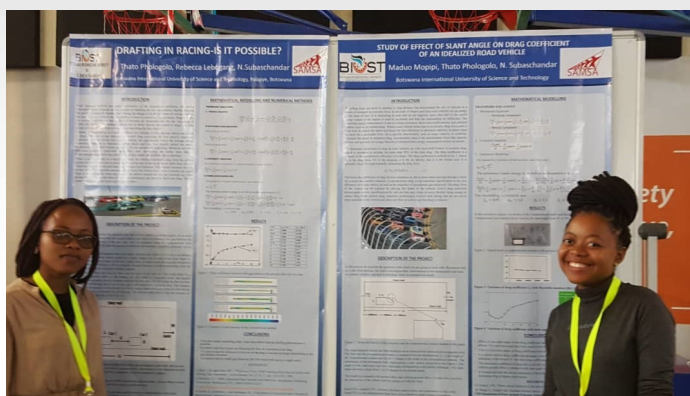
Third Prize Winner

Rebecca Lebogang (co-authors :Thato Phologolo & N Subaschandar), BIUST, Botswana.

Topic: Drafting in Racing -Is It Possible?



Above is **Annah Motoi** and below from the left **Rebecca Lebogang** and **Maduo Mopipi** who won the poster presentation awards at 2018 SAMSA conference.



2018 SAMSA conference delegates at Khama Rhino Sanctuary for the excursion.