



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Natural and
Agricultural Sciences

2nd Joint UNISA — UP Workshop on Theoretical and Mathematical Epidemiology

Date: 2 — 7 March 2015
Venue: High Performance Center (hpc),
LC de Villiers Sports Grounds,
University of Pretoria, Pretoria,
South Africa

www.up.ac.za/unisa-up-workshop

Aims and Objectives

This joint University of South Africa (UNISA) — University of Pretoria (UP) Workshop on Theoretical and Mathematical Epidemiology is the second in a series of three.

The first workshop was hosted by UNISA from 3 — 8 March 2014. The objective of that workshop was to produce a local pool of expertise on the place and role of mathematical epidemiological modeling with the aim of influencing the formulation of public health policies in a positive way. The aim of this second workshop is to build on this local expertise to identify adequate responses to new and older forms of diseases — such as tuberculosis, HIV/AIDS and other communicable diseases, which pose a massive threat to development in South Africa and other African countries.

The workshop will focus on:

- the formulation of advanced deterministic/stochastic epidemic models in different settings, such as delay models, metapopulation models, vector- and water-borne diseases;
- some case studies, including new diseases and old forms of new diseases such as Ebola and bird flu;
- highlighting the impact of measures put in place to control the spread of infectious diseases;
- in-depth quantitative and qualitative analysis of the models; and
- the design of health policies.

Format

The workshop will be divided into two main parts:

- 28 February to 1 March 2015: An intensive preliminary two-day workshop will be presented to accommodate newcomers and beginners to inform them of the material dealt with during the first workshop
- 2 — 7 March: (a) formal lectures conducted by invited speakers for all participants, and (b) participants' presentations on their own research

Keynote Speakers

Speakers participating in this year's workshop are:

- Prof Christopher Kribs, University of Texas at Arlington, USA
- Prof Farai Nyabadza, University of Stellenbosch, South Africa
- Prof Pauline van den Driessche, University of Victoria, Canada
- Prof Abdul-Aziz Yakubu, Howard University, Washington DC, USA

Sponsors

The workshop is funded by the DST/NRF SARCHI Chair in Mathematical Models and Methods in Bioengineering and Biosciences, University of Pretoria; the office of Prof Mamokgethi Phakeng, Vice-Principal: Research and Innovation, UNISA; and DST/NRF Centre of Excellence in Mathematical and Statistical Sciences (MaSS), University of Witwatersrand.

Registration

Researchers and postgraduate students who would like to attend the workshop are requested to download the registration form from www.up.ac.za/unisa-up-workshop. Registration closes on **10 February 2015**.

Accommodation

A special rate has been negotiated for accommodation at the High Performance Centre, University of Pretoria. All delegates are encouraged to stay there to facilitate discussion. See www.hpc.co.za for more details.

Funding

Limited funding is available to support participants with accommodation and registration fees. Details regarding application can be found on the registration form.

Organising Committee

Jean Lubuma (Chair); Justin Munganga (Vice-chair); Rachel Combrink (Administrator, rachel.combrink@up.ac.za); Michael Chapwanya; Salisu Garba; Jeanine Mwambakana; Riette Maritz; Franc Goufo, Magda Swanepoel, Quay van der Hoff and Nafiu Hussaini.