



SACEMA
DST/NRF Centre of Excellence in Epidemiological Modelling and Analysis

SACEMA NEWSLETTER

NO. 7, September 2007

This newsletter is just a quick update to everyone on what we have been doing. After a very busy June and July we are basking in the eye of the storm until November hits SACEMA's shores!

Latest at SACEMA:



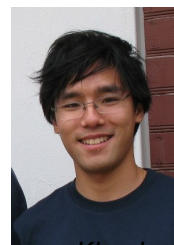
Damian

We are pleased to welcome two more resident students to the wine cellar in Stellenbosch. Damian Kajunguri and Joseph Ssebuliba are both from Uganda, and studied at the African Institute of Mathematical Sciences in Muizenberg. SACEMA staff supervised their essays which form part of the AIMS course, and we have now taken them on as Masters students at the University of Stellenbosch.



Joseph

Rachid Ouifki has been very busy, having recently returned from spending six months working in Paris. He hosted a French student for one month at SACEMA: Khanh Dao Duc, from the University of Lyons. Khanh was working on his French Masters 1 project while at SACEMA, which Rachid was supervising. The project was entitled "Review of some mathematical models for the interactions between HIV and the immune system".



Khanh



Rachid at the LSHTM

Rachid also attended the Advanced Course in Epidemiological Analysis at the London School of Hygiene and Tropical Medicine, from 3-14 September 2007. This course covers statistical methodology for the design and analysis of epidemiological studies. Emphasis is placed on developing an understanding of the key principles and assumptions allowing for the correct interpretation of results from practical applications of statistical techniques.

We have recently initiated a seminar programme and will shortly be advertising our seminars on our website. To date, Dr Pieter Uys has presented on "Using mathematical models to understand TB epidemics". Part of this presentation is available from our website to download: <http://www0.sun.ac.za/sacema/seminars/index.html>. Dr Uys has been contracted to SACEMA to work part-time on issues in TB diagnostic and treatment delays.

Theresia Marijani, MSc student at SACEMA, also recently presented on the progress with her Masters Degree. She is working on drug resistance in malaria, and is expected to finish at the end of 2008.

Events:

Introductory course in the Application of Mathematics in Biology & Medicine:

SACEMA sponsored an introductory course on the use of maths in biology and medicine, held at AIMS from 9-13 July 2007. This was aimed at South African students in their 3rd or Honours year of study in a mathematical subject, with the intention being to interest them in the use of mathematics to solve issues in biology or medicine.

The course was run as a collaborative venture with AIMS and the Centre for Actuarial Research (CARE) at UCT. CARE's Professor Rob Dorrington and Leigh Johnson kindly agreed to provide teaching services, as did Prof Cathal Seioghe from the Bioinformatics Node at UCT and Johan Rohwer, Paul Mostert and Chris Muller from Stellenbosch University. From the SACEMA staff and associates: Dr Farai Nyabadza, Carel Pretorius, Dr Alex Welte; Prof Ekkehard Kopp and Prof John Hargrove were all involved in the programme.

The students attending the course also got the opportunity of visiting the Masiphumelele clinic, a research site of the Desmond Tutu HIV Centre, and were given an introduction to distributed computing by a team from CERN [the international elementary particle physics research centre] in Switzerland.

Feedback from this course was very positive so we are planning to repeat it in 2008.



Happy students at SACEMA's course, on the steps of AIMS

Upcoming Events:

November 2007:

Meeting on Male Circumcision:

SACEMA will be co-hosting a meeting on male circumcision in November 2007, with UNAIDS and the WHO. Leading researchers from around the world investigating the efficacy of this intervention in helping to prevent the spread in HIV will be attending. We hope to have some report-backs from this meeting in the next newsletter.

Prof John Hargrove's Inaugural Lecture:

Prof Hargrove will be delivering his Inaugural Lecture at the University of Stellenbosch on the evening of 14 November 2007. Should any readers happen to be in Stellenbosch at this time, you are more

SAMSA:

Prof Ekkehard Kopp, Chair of SACEMA's Board of Trustees has been invited to speak at the Southern African Mathematical Sciences Association 2007 Conference in Windhoek, from 27-30 November. His presentation is entitled "The individual reproductive number in the study of epidemics". Click here for more information on the conference: <http://samsajournal.org/samsa/>

New projects:

BOINC:

SACEMA has agreed to work with CERN on a distributed computing project, getting a BOINC portal developed for HIVMM (HIV microsimulation software). This will be done through CERN's Africa@Home project, and will also involve working with UCT to set up a BOINC server at UCT from which to run large-scale volunteer computing projects.

New Biomathematics stream at Stellenbosch University:

A new biomathematics stream will be introduced at Stellenbosch University in the undergraduate curriculum in 2008 in the Department of Mathematical Sciences. Two of SACEMA's staff, Dr Rachid Ouifki and Dr Farai Nyabadza, will be involved in lecturing this course and demonstrating the use of mathematics in solving biological and medical problems. For more information see: <http://math.sun.ac.za/events/newsitem.php?lang=&id=97>