21 November 2014

Upcoming UCT event

- **eResearch Africa Conference** –Taking a look at how information and communication technologies help researchers to collect, manage, share, process, analyse, store, find and re-use information
- **Creating a "global laboratory"** – Professor Barend Mons to talk about the need for researchers to make their data accessible
- **Radio astronomy data** – Dr Sarah-Louise Blyth to discuss some of the challenges faced by scientists in collecting data from the MeerKAT radio telescope
- **Building infrastructure and capacity to enable genomic research** – Professor Nicola Mulder to take a look at how to analyse genome data to better understand infectious diseases such as tuberculosis

Date	Event/Topic	Highlights/Speakers	Contact
23 - 27 Nov	**eResearch Africa Conference** **Time:** 08h00 - 18h00 **Venue:** Kramer Law Building, Middle Campus	The University of Cape Town will host the eResearch Africa Conference from 23 to 27 November 2014. Organised by the Association of South African University Directors of Information Technology, the conference will bring together practitioners and researchers to share ideas and exemplars on new information-centric research capabilities. eResearch is focused on how information and communication technologies help researchers to collect, manage, share, process, analyse, store, find and re-use information. This is the second African conference to be held; the first was also hosted in Cape Town in 2013.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**Creating a "global laboratory"**	**Professor Barend Mons** from the Leiden University Medical Centre in the Netherlands will	**Cindy Mathys** Cell: 072 382 0312 Email:

	Time: 09h00 - 10h00 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle Campus	address the need for researchers to make their data accessible – to allow for the creation of a "global laboratory" with a resulting increase in scientific breakthroughs. Professor Mons will challenge established views in the fields of data publishing, scholarly communication and scientific networking. His focus is on the breaking down of barriers to allow effective data exposure, sharing and integration in the "Big Data era".	cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**The craftsperson and the scholar: Research software engineers and their place in the university** **Time:** 10h00 - 10h30 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle Campus	**Dr James Hetherington** from the University College London, United Kingdom, will argue that more researchers are writing software for their research from tools which automate the process of analysing and visualising research data to complex simulations running on the world's fastest computers. Dr Hetherington's talk will look at the current status of programmers in research and at possible ways forward for universities to build this capacity.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**Design and development of effective web and mobile applications for visualising molecular structures** **Time:** 13h30 - 13h50 **Venue:** Lecture Theatre 2, Kramer Building, Middle Campus	UCT's **Professor Michelle Kuttel** uses graphics processing, also applied in game development to build web and mobile applications, to properly display and explore molecular structures for chemical research. Professor Kuttel will discuss a range of related student projects that aim to design and develop effective mobile applications for visualising the structure of carbohydrate molecules.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**Visualisation walls in research:** More than just big screens and pretty pictures **Time:** 13h50 - 14h10 **Venue:** Lecture Theatre 2, Kramer Law Building, Middle Campus	South Africa has started to make inroads in research data visualisation. UCT's **Dr Chris Barnett** will discuss the potential role of a visualisation facility to allow researchers to share, manipulate and gain insight into complex data.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za

24 Nov	**Highly Immersive Visualisation Environment** **Time:** 14h10 - 14h30 **Venue:** Lecture Theatre 2, Kramer Law Building, Middle Campus	**Yafah Hoosain** from the University of the Western Cape (UWC) will talk about the Highly Immersive Visualisation Environment - a 3D visualisation facility within the Earth Science Department at UWC.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**Effective visualisation to enhance identification of radio frequency interference in radio astronomy data** **Time:** 14h30 - 14h50 **Venue:** Lecture Theatre 2, Kramer Law Building, Middle Campus	**Dr Sarah-Louise Blyth** from UCT will discuss some of the challenges faced by scientists in collecting data from the MeerKAT radio telescope. She will in particular address projects undertaken to measure, identify and visualise radio frequency interference: a major challenge for the scientific analysis of the radio data. The MeerKAT, currently being built in the Karoo, will be the largest radio interferometer in the Southern Hemisphere and among the most sensitive radio telescopes in the world right now.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
24 Nov	**Building infrastructure and capacity to enable genomic research** **Time:** 16h20 - 17h00 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle Campus	**Professor Nicola Mulder** from UCT will discuss how the Computational Biology (CBIO) group at the university is analysing genome data in an attempt to better understand infectious diseases such as TB. CBIO heads H3ABioNet, a Pan-African bioinformatics network for H3Africa which includes partners at over 30 African institutions, is helping to build capacity for large-scale data analysis.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
25 Nov	**Building a massive research data cloud in Australia – Lessons learned and reflection on an African context** **Time:** 16h00 - 16h45 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle	**Dr Nick Tate** from the University of Queensland, Australia, will review lessons learned while building a massive research data cloud in Australia. He will reflect on how these might translate into an African context. Dr Tate will take a look at the role of public and private	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email:

		clouds, as well as legal and other considerations for access. He will also talk about the infrastructure and tools required to achieve a useful outcome.	natalie.simon@uct.ac.za
26 Nov	**The SKA and the rise of Big Data in radio astronomy** **Time:** 08h45 - 09h30 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle Campus	The Square Kilometre Array (SKA) project, including SKA technology developments in South Africa, is driving one of the most significant Big Data challenges of the coming decade. **Professor Russ Taylor** from UCT will discuss innovations in computational technologies to manage this data.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za
26 Nov	**Municipal administrative data: Big Data in economics** **Time:** 09h30 - 10h00 **Venue:** Lecture Theatre 1, Kramer Law Building, Middle Campus	Municipalities daily generate large amounts of household level data. Grant Smith from UCT is working with Kelsey Jack from the Tufts University in Massachusetts, USA, to collect data on water and electricity consumption and payment records, among others, to answer questions around household welfare and service delivery sustainability. In this presentation Smith will speak about the particular challenges of using such Big Data in social sciences, with regards to: • protecting confidential data; • creating and maintaining partnerships with municipalities' key departments; and • integrating disparate data sets in order to produce a data set amenable to enquiry.	**Cindy Mathys** Cell: 072 382 0312 Email: cindy.mathys@uct.ac.za **Natalie Simon** Cell: 074 191 0945 Email: natalie.simon@uct.ac.za

For more information on the eResearch Africa Conference, visit
http://www.eresearch.uct.ac.za/news/counting-hours-eresearch-africa-2014.

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