

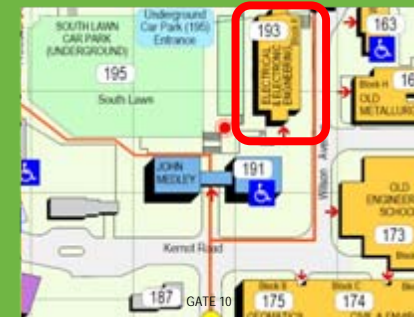
Details available online at http://nicta.com.au/nicta_events/big_picture/vrl_seminars

National ICT Australia invites you to the Victoria Research Laboratory Big Picture Seminar Series Thursday October 15, 2009

The talk will be followed by light refreshments and an opportunity to meet the speaker.

REGISTRATION IS ESSENTIAL FOR THIS FREE EVENT
RSVP to vrlss@nicta.com.au by Tuesday 13 Oct, 2009

Public Parking is available at an hourly rate at the University Square car park. Enter via Bouverie Street. Local street parking is also available.



When: 4-5pm, Thursday October 15, 2009

Where: Brown Theatre, Electrical & Electronic Engineering (Building 193), University of Melbourne, Parkville

Professor Bryan Gaensler, The University of Sydney, Australia

The Square Kilometre Array: An International Radio Telescope for the 21st Century

ABSTRACT: The Square Kilometre Array (SKA) is a next-generation radio telescope which will answer fundamental questions about the origin and evolution of the Universe. With a million square metres of collecting area, the SKA will be 50 times more sensitive than any other telescope ever constructed. Recent technological developments in both computing and radio frequency devices make it feasible to begin construction on such a facility in the next five years. Five key science projects for the SKA have been identified, focused on unsolved problems in fundamental physics, cosmology, galaxy evolution, and planet formation. In addition to answering these and other specific questions, the vast increase in sensitivity provided by the SKA will also almost certainly lead to the discovery of new and totally unexpected celestial phenomena. In this talk, I will review the science that motivates the SKA, will explain the instrumental specifications which result, and will highlight the prototype SKA facilities that are now under construction.

BIOGRAPHY: Bryan Gaensler is an astronomer and Professor of Physics at The University of Sydney, and is a Federation Fellow of the Australian Research Council. Gaensler is a graduate of The University of Sydney, from which he was awarded the University Medal in physics in 1995, followed by a PhD in physics in 1998. He subsequently held positions as a Hubble Fellow at the Massachusetts Institute of Technology, as the Clay Fellow at the Smithsonian Institution and then as an Associate Professor at Harvard University, before returning to Australia in 2006.

Gaensler's current research interests focus on the origin of magnetism in interstellar space, the demographics of neutron stars and black holes in our Milky Way, and the identification of variable and transient sources of radio emission. He is the Editor-in-Chief of Publications of the Astronomical Society of Australia, and is the former International Project Scientist for the Square Kilometre Array, a next-generation radio telescope.

Prof. Gaensler was the 1999 Young Australian of the Year, gave the 2001 Australia Day Address to the nation, was a 2005 Alfred P. Sloan Research Fellow, and was the recipient of the 2006 Newton Lacy Pierce Prize awarded by the American Astronomical Society. He has authored over 160 scientific papers, and has written dozens of popular articles on astronomy, science and education.



Photo by Mark Sims