WARS02

Discussion Session on the Square Kilometre Array (SKA)

Wednesday 20th February 2002
4 – 6pm

Convenor: Graeme James (CSIRO)

The Square Kilometre Array (SKA) is a proposed centimetre-wavelength radio telescope for studying the early universe with the intention of commencing operations around 2015. It will be enormous in size having an effective collecting area of one square kilometre at 1.4 GHz to give 100 times more sensitivity than any existing radio telescope. As a minimum, the frequency coverage will range from 0.3 GHz to 5 GHz. Multi-beaming is a key factor in the design with many independent dual-polarised beams on the sky at any one time. This momentous challenge requires the expertise of an international consortium in which Australia is playing a significant role. In this session we present an overview of the SKA project and, in particular, show where Australia is making important contributions. Delegates will be given a booklet 'from cogs to connectivity' (which is also to be found on the CD of WARS'02) outlining the engineering aspects of the project.

Further information is available at the web site 'http://www.atnf.csiro.au/ska'.

Topics and Speakers

4.00 - 4.30pm: The Astronomers' View (Dr Carole Jackson, ANU)

4.30 - 5.00pm: A Technological Overview (Aaron Chippendale, CSIRO)

5.00 – 5.15pm: Antenna Options (Dr Graeme James, CSIRO)

5.15 – 5.30pm: Signal Processing Role (Dr Colin Jacka, CSIRO)

5.30 – 5.45pm: The Correlator Challenge (Dr Warwick Wilson, CSIRO)

5.45 – 6.00pm: Interference Mitigation (Daniel Mitchell, CSIRO/USYD)