

Research conferences

The Academy supports conferences aimed at advancing the development and application of science across a range of disciplines.

2012 research conference reports

2012–13 Elizabeth and Frederick White research conference

Exploring the radio continuum Universe with SKA Pathfinders

30 May – 1 June 2012, CSIRO Astronomy and Space Science, Marsfield, NSW. Organised by Dr Nicholas Seymour.

The Square Kilometre Array (SKA) is an international \$2 billion project to develop the most advanced radio telescope in the world with a collecting area of one square kilometre, with orders of magnitude larger than the current most sensitive radio telescopes. Construction of the first phase of the SKA is due to start in 2016, with the first operations in 2020.

Given the recent SKA dual-site decision (Australia and South Africa), the importance of the South Africa pathfinder (MeerKAT) and the two Australian pathfinders (Australian SKA Pathfinder and the Murchison Widefield Array) is now greater than ever.

The conference was the second meeting of the SKA Pathfinders Radio Continuum Surveys (SPARCS) working group, which reports to the SKA project scientist.

The forum aimed to coordinate the radio continuum surveys of the groups in a project that heralds the beginning of a second 'golden age' of radio astronomy. The group also acknowledged that continuum observations are just one facet of radio surveys. Continuum information is vital for spectral line, polarisation and time domain surveys, and there is a large scope for commensality between

different types of surveys. The 3rd SPARCS meeting will be held in 2013, possibly in South Africa or Calgary.

Fenner conference on the environment

Coral Reefs on the edge — new challenges for high latitude coral reef communities

29 June – 3 July 2012, Department of Fisheries (WA) Perth, and the Saville Kent Houtman Abrolhos Island Research Station. Drs Lynda Bellchambers, Stephen Newman, Euan Harvey and Dave Abdo organised the conference.

The National Estate-registered Houtman Abrolhos Islands (Abrolhos) archipelago about 65–90 kilometres offshore from Geraldton, Western Australia, is a unique habitat for tropical and temperate species. Its coral reefs are the most southern in the Indian Ocean and are extremely diverse for the high latitudes at which they occur, with 184 species in 42 genera of coral recorded. Major threats — both anthropogenic (e.g. fishing and tourism) and natural (e.g. ocean warming and the associated potential for ocean acidification) — can affect the ability of coral and macroalgae to grow. In March 2011 warmer than normal sea surface temperatures resulted in the first recorded large-scale coral bleaching at the islands.

This provided the impetus for the conference, which has generated strong links between delegates. Peer-reviewed publications and grant applications arising from the conference will enable further research into the unique islands and the processes that maintain them in the tropical–temperate transition zone of the Western Australian coastline.

Boden Conference

Proteostasis and disease symposium

28–30 November 2012, Novotel Wollongong. Organised by Professor Mark Wilson, School of



Coral and macroalgae assemblages dominate the Abrolhos Islands.

Biological Sciences, Illawarra Health and Medical Research Institute, University of Wollongong.

The processes that maintain protein homeostasis are collectively referred to as proteostasis, a term generally jointly attributed to Professors Rick Morimoto (Northwestern University, USA) and William Balch (Scripps Research Institute, USA), both of whom were invited speakers at the inaugural *Proteostasis and disease symposium* (see proteostasis2012.com.au/2012). The symposium was an initiative of the recently formed Proteostasis and Disease Research Centre at the University of Wollongong, a collective of researchers working on chaperones, protein folding and related diseases www.uow.edu.au/science/researchgroups/pdrc/index.html

Because of the diversity of sub-fields within proteostasis, only a few previous international meetings have been held. In an enthusiastic response from people around the globe, 21 of the 80 delegates came from overseas. A keynote address was given by Professor Chris Dobson FRS (University of Cambridge) on new approaches to understanding and preventing neurodegenerative diseases. A highlight was a student session where six postgraduate student researchers spoke about their results in short 12-minute talks.

2013 research conference announcements

2013 Elizabeth and Frederick White research conference

The University of Melbourne and the University of Newcastle were awarded \$10 000 for their conference *Mathematics of planet Earth 2013*, to be held at Rydges Melbourne, 8–12 July 2013 — mathsofplanetearth.org.au/events/2013/.

2013 Boden research conference

The University of Sydney was awarded \$10 000 for its conference *Photobiology — 6th Asia and Oceanic conference on photobiology*, to be held at Citygate Central, Sydney, on 10–13 November 2013 — www.aocp2013.org.au

2013 Fenner conference on the environment

Sustainable Population Australia Inc was awarded \$10 000 for its conference *Population, resources and climate change — implications for Australia's near future*, to be held at the Shine Dome, Canberra, in October 2013.

More information on research conferences is available at www.science.org.au/awards/research-conferences.html.