The Astronomical Society of Australia

The Astronomical Society of Australia (ASA) is the organisation of professional astronomers in Australia. Many of its members work at observatories or universities in Australia and overseas, but the Society also includes astronomy students, some high profile amateur astronomers and educators.

The ASA publishes a refereed, fully electronic, astronomical journal, the *Publications of the Astronomical Society of Australia* (PASA). The Society also awards several prizes to astronomers, students, amateur astronomers and authors of astronomical material. Further information can be found on the ASA web site

http://asa.astronomy.org.au

For more information on all aspects of astronomy in Australia, look at the ASA's Australian Astronomy web site

http://www.astronomy.org.au

The Astronomical Society of Australia

presents

The 2010 Harley Wood Lecture

Adventures in wide-field astronomy

Professor Elaine Sadler
The University of Sydney

Physics Lecture Theatre 1
University of Tasmania
8:00 PM Tuesday 6 July 2010

An event in association with

The University of Tasmania

The Harley Wood Lecture

In conjunction with its Annual Scientific Meeting, the Astronomical Society of Australia conducts a public lecture named in memory of Dr Harley Wood, the first President of the Society. Dr Wood was Government Astronomer at Sydney Observatory for over 30 years and during this time operated the astrographics facility. He was also heavily involved in the popularisation of astronomy and making astronomy available to everyone.

Past Harley Wood Lectures

1987	Paul Wild	The Beginnings of Radio Astronomy in Australia
1988	Ron Ekers	Revealing the Invisible Universe
1989	David Malin	Astronomical Reflections - Light from between the Stars
1990	Sidney van den Bergh	Asteroids and Dinosaurs
1991	Colin Norman	The Hubble Space Telescope
1992	Barry Jones	Science Intellectuals can Transform Australia
1993	Patrick Moore	Exploring the Planets
1994	Jeremy Mould	High Resolution Imaging with the HST
1995	Malcolm Longair	Black Holes made Easy
1996	Russell Cannon	How Old are the Stars?
1997	David Jauncey	The Vision Splendid: Radio Astronomy in Space
1998	Brian Boyle	Mapping the Universe
1999	Rev. Robert Evans	Exploding Stars, an Australian Discovery Story
2000	Martin George	Silhouettes and shadows: Eclipses
2001	Brian Schmidt	Measuring the Universe
2002	Penny Sackett	One Hundred New Worlds
2003	Paul Davies	The State of the Universe
2004	Matthew Colless	Surveying the Universe
2005	Bryan Gaensler	The Brightest Explosion in History
2006	Michael Dopita	Star Formation through Cosmic Time
2007	Matthew Bailes	Millisecond Pulsars and Einstein's Universe
2008	John Dickey	What can VLBI do for you?
2009	Ray Norris	Australian Indigenous Astronomy

Adventures in wide-field astronomy

by Professor Elaine Sadler, The University of Sydney

Elaine Sadler completed her PhD in astronomy at the ANU and held postdoctoral fellowships at the European Southern Observatory in Germany and Kitt Peak National Observatory in the United States before returning to Australia to take up a research position at the AngloAustralian Observatory. She is currently an ARC Australian Professorial Fellow in the School of Physics at the University of Sydney. One of her main areas of research is galaxy evolution; the study of how galaxies form and change over cosmic time, and she is currently President of Division VIII (Galaxies and the Universe) of the International Astronomical Union.

Abstract: The Canadian astronomer Sydney van den Bergh predicted a decade ago that "The astronomy of the 21st century will be dominated by computer-based manipulation of huge homogeneous surveys of various types of astronomical objects." In many ways this has come true, and I hope to share with you some of the excitement of the large, wide-field astronomical surveys in which I and my colleagues have been involved. I will talk about some of the challenges of this kind of work, as well as showing how wide-field astronomy can provide unique insights into the evolution of galaxies and their central black holes over timescales of billions of years. Finally, I will give a glimpse of future developments in wide-field radio astronomy.