



Communications

2016 Australian Academy of Science Awards

The Australian Academy of Science has announced its 2016 Honorific awards for scientific excellence, including two practitioners of mathematics. They will receive their medals at a presentation in Canberra on 25 May 2016, during the Academy's annual three-day event Science at the Shine Dome

<https://www.science.org.au/news-and-events/events/science-shine-dome>.

Our congratulations to both of them.

Christopher Heyde Medal for distinguished research in the mathematical sciences

Dr Luke Bennetts (University of Adelaide)



Dr Bennetts is an applied mathematician who models how waves of various kinds, e.g. acoustic waves, electromagnetic waves and waves at the surface of the ocean, are affected by solitary objects or assemblages of objects in their path. A major focus is on how ocean waves interact with ice floes in the polar seas, as this phenomenon appears to be a key contributor to the changes the Earth is experiencing in the Arctic Basin and the Southern Ocean due to the onset and furtherance of global climate warming. Because the polar regions are so important to the world's atmosphere and oceans, the methodology which he has created is also immediately applicable to the refinement of hemispheric-scale, coupled, operational climate forecasting, as well as contemporary research schema. His fusion of analytical technical mathematics with sophisticated computational methods allows real world problems, including nonlinear modes of behaviour, to be tackled and solved.

Fenner Medal for distinguished biology research

Dr Jane Elith (University of Melbourne)

Associate Professor Elith specialises in developing and evaluating species distribution models, statistical models that describe relationships between the occurrence and abundance of species and the environment. These models are used to predict where species occur in the landscape, or where they might occur in the future. She has rapidly become one of the world's most influential researchers in applied ecology. In addition to her major academic impacts, her guides and novel tools



for modelling species and ecological communities have been used by government and environmental management agencies in Australia and internationally. The interface between environmental management and science makes extensive use of her research to plan management of invasive species, improve conservation of biodiversity, and contribute to strategic land-use planning. In this way, she has not only substantially influenced academic research, but also impacted environmental management nationally and internationally.