

## Geological Society Special Lecture: Professor Kurt Lambeck (Wollaston Medallist)

The Australian National University



## **Of Ice and Land, Sea and Strand: Sea Level During Glacial Cycles** 25 September 2013 • 6pm • The Geological Society, Burlington House, London

One of the classic problems joining many of the geoscience disciplines is the relationship between ice sheets, sea level and the solid Earth during glacial cycles: Geophysical modelling defines the solid Earth's response to changes in surface loads and hence constraints estimates of mantle rheology; geological observations provides constraints on past ice movements and on the sea level response to the changes in the ice loads; geodetic data provides measures of the recent response to past and present ice changes; glaciology provides the observational evidence and theory for ice movements in a changing climate; and the dynamics of the solar system provides one of the driving forces for the growth and decay of ice sheets. It provides therefore not only a scientific challenge but also insights into the working of the climate system of the planet, and a framework for discussing human migrations and coastal archaeological settings. Here, I will endeavour to give an overview of where this science is at: what have we learnt about past ice sheets from geophysical inversions of geological data; what have we learnt about the mantle's response to surface loading on time scales of thousands of years; are realistic palaeo reconstructions possible of the coastal zones; and are there lessons that may be relevant to understanding present sea level change.

## **Registration:**

The lecture is free to attend but the event will be ticketed, so you must pre-register. To register for a place, please email naomi.newbold@geolsoc.org.uk