# The Geological Society of London:
## *East Midlands Regional Group*
## *Christmas Lecture*

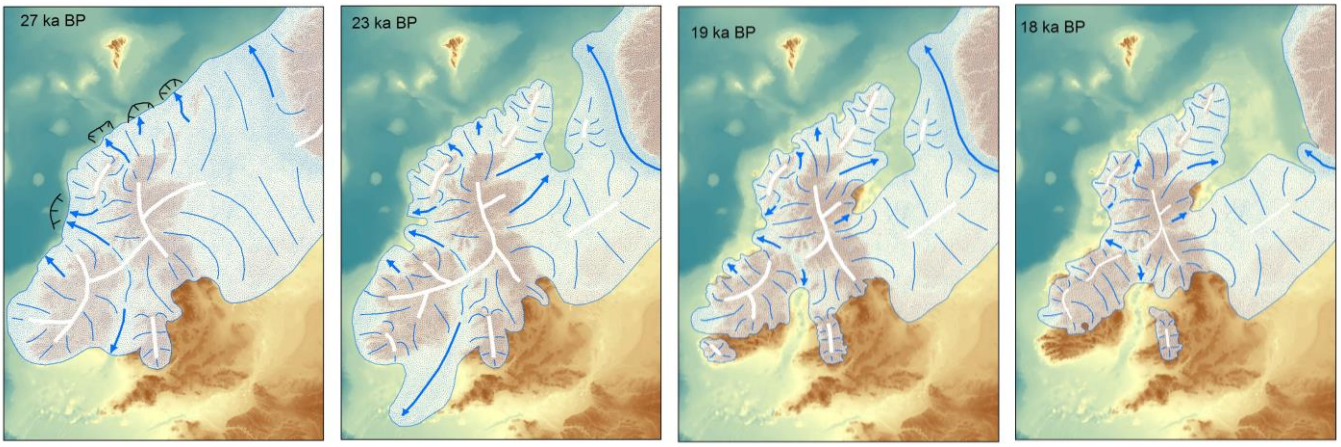
# Can reconstructing the last British-Irish ice sheet help improve forecasts of Antarctic ice sheet collapse and sea level rise?

**With**


**Chris D Clark**

University of Sheffield


Satellite measurements of the Antarctic and Greenland ice sheets highlight that reductions in mass are occurring at rates higher than expected, contributing to global sea level rise and with suggestions that this may soon occur at an accelerating rate. Additional alarm is raised by some theory and evidence that tell us that rather than just steady and predictable retreat by melting, that occasionally, ice sheets undergo wholesale dynamical collapse of large sectors. Forecasts of sea level rise over the coming decades and centuries are thus fraught with uncertainty, and yet for human wellbeing we require robust predictions. After reviewing the current state of knowledge regarding changes in our extant polar ice sheets, the lecture will argue that knowledge on the demise of ice sheets that have already disappeared will be vital in improving ice sheet forecasts. The talk will focus on how an improved appreciation of glacial landforms has permitted a reconstruction of the retreat of last British-Irish Ice Sheet, and how a large project (BRITICE-CHRONO) is currently gathering seafloor and terrestrial samples for geochonometrically dating ice margin retreat. I will conclude regarding how such information can be used for improving the forecasting skill of ice sheet modelling.




# Thursday 11th December, 2014

Conference Centre, BGS Keyworth, NG12 5GG

Refreshments available in Reception from 6.30pm, talk starts at 7pm

--Everyone welcome--