

# CoE-MaSS weekly seminar series

THE DST-NRF CENTRE OF EXCELLENCE IN MATHEMATICAL AND  
STATISTICAL SCIENCES (CoE-MaSS) WOULD LIKE TO PRESENT  
A RESEARCH SEMINAR BY

**Prof Grae Worster**

*(Dept of Applied Maths and Theoretical Physics, University of Cambridge)*

## ***“Collapsing ice sheets”***

Monday, 15 February 2016  
10h30-11h30

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**Broadcast live from:**

Videoconferencing Facility, 1st Floor  
Mathematical Sciences Building, Wits West Campus

**How to connect to this seminar remotely from anywhere in the world:**

You can connect remotely via Vidyo to this research seminar by clicking on this link:  
<http://wits-vc.tenet.ac.za/flex.html?roomdirect.html&key=y0SSOwFsvsidbzg4qFdWXvvQtyl>  
and downloading the Vidyo software before the seminar.

You must please join in the virtual venue (called “CoE Seminar Room” on Vidyo)  
strictly between **10h00-10h15**. No latecomers will be added.

**Important videoconferencing netiquette:**

Once the seminar commences, please mute your own microphone so that there is no feedback from your side into the virtual room. During the Q&A slot you can then unmute your microphone if you have a question to ask the speaker.

**Title:**

Collapsing ice sheets

**Presenter:**

Prof Grae Worster, Department of Applied Mathematics and Theoretical Physics, University of Cambridge. Email: [mgw1@cam.ac.uk](mailto:mgw1@cam.ac.uk)

**Abstract:**

Most of the West Antarctic Ice Sheet (WAIS) sits on bedrock that is one to two kilometres below sea level. It's weight causes the ice sheet to flow outwards towards the ocean, thinning as it goes until it is thin enough to float on the ocean as an ice shelf before it ultimately breaks up into ice bergs. Some areas of the WAIS have been accelerating in recent years, as the point at which the sheet begins to float recedes, and this contributes to the rise in global sea level. I shall describe some recent analogue laboratory experiments and associated mathematical models that describe and quantify the fundamental dynamical controls on ice sheets that terminate in the ocean, focusing particularly on the role that floating ice shelves play in buttressing the ice sheet against collapse.

