



Cambridge Society for the Application of Research

Churchill College  
Storeys Way  
Cambridge  
CB3 0DS

# **Building a Climate System Laboratory**

## Modelling the Climate System

**Professor Dame Julia Slingo, DBE, DSc**  
Chief Scientist, Met Office

7.30pm, Monday 1<sup>st</sup> December, 2014

Wolfson Hall Lecture Theatre, Churchill College, Storey's Way, Cambridge

### **The Lecture:**

#### **Building a Climate System Laboratory: how models help us to understand the climate system**

Climate change is arguably one of the greatest challenges that human civilisation will face in the 21st century. With the rise in carbon emissions continuing unabated and the evidence for human-induced climate change stacking up, the need to take action to mitigate and adapt to future climate change grows. We may be taking the planet into uncharted territory, so how can climate science help us to navigate the challenges ahead?

Dame Julia's lecture will examine the key atmospheric processes which control the climate system, and how over the course of her career as a climate scientist these have been encapsulated in climate models. She will discuss how climate models act as the laboratory for climate science, enabling us to understand how the climate system works; and explain how climate models allow us to look into the future and examine the potential impacts of climate change on lives and livelihoods around the world.

Finally Dame Julia will discuss how information from climate models can be used to help society make informed decisions and prepare for weather and climate risks across timescales.

## About the Speaker:

### Professor Dame Julia Slingo DBE DSc

Julia Slingo became Met Office Chief Scientist in February 2009 where she leads a team of over 500 scientists working on a very broad portfolio of research that underpins weather forecasting, climate prediction and climate change projections.

Since joining the Met Office Julia has sought to integrate the UK community in weather and climate research to ensure that the UK receives maximum benefit from its science investments.

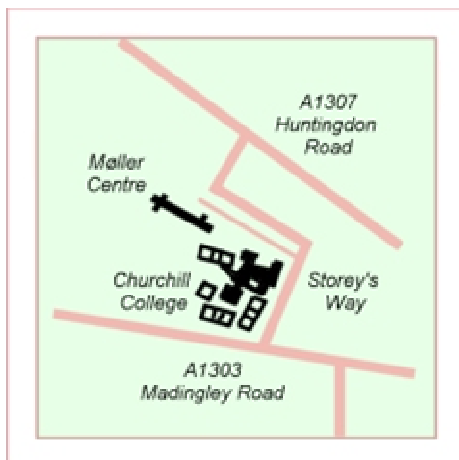
She has strengthened the NERC/Met Office Joint Weather and Climate Research Programme to secure the UK's national capability in observations, modelling and supercomputing, and set in place a unique Academic Partnership with leading universities, including Exeter University to advance cutting edge research and bring more of their science through to impact.

Before joining the Met Office Julia was the Director of Climate Research in NERC's National Centre for Atmospheric Science, at the University of Reading. In 2006 she founded the Walker Institute for Climate System Research at Reading, aimed at addressing the cross disciplinary challenges of climate change and its impacts.

Julia has had a long-term career in atmospheric physics and climate science, working at the Met Office, the European Centre for Medium-range Weather Forecasts, and the National Center for Atmospheric Research in the USA.

Throughout her career she has brought innovative approaches to understanding and modelling weather and climate. She has developed and used complex weather and climate models to deliver new insights into how the atmosphere and climate system works, as well as significant advances in predictive skill. Her special interests are in tropical weather and climate variability, understanding their influence on the global climate system and their role in monthly to decadal climate prediction.

## Practical Matters



Those attending the CSAR lecture may park in the Senior Car Park on Churchill Road, which is off Storey's Way. More parking is available further along Churchill Road, and in the Møller Centre at the far end.

CSAR lectures are open to all; CSAR members are admitted free. Pupils and students may register for free membership at the lecture reception desk.

Non-members are asked to make a nominal contribution of £3.00.

Coffee and biscuits are available in the Wolfson Foyer from around 7pm. For further directions, see: [www.chu.cam.ac.uk/about/visitors/directions.php](http://www.chu.cam.ac.uk/about/visitors/directions.php)