

Weather and Climate Modelling

Imperial College, London

Wednesday 17th April 2013.

Run jointly with the Royal Meteorological Society and the Grantham Institute for Climate Change

A half-day meeting on the topic of 'Should weather and climate prediction models be deterministic or stochastic?' was held at Imperial College London on the afternoon of Wednesday 17 April 2013. The meeting was co-sponsored by the Grantham Institute for Climate Change and the IOP Environmental Physics Group, and was part of the Royal Meteorological Society's National Meetings programme. Around 150 people attended.



The subject of the meeting was a topical one. It is becoming increasingly common to represent subgrid-scale features in weather and climate models by including random noise. But is this really the best approach to the parameterisation problem? With Brian Hoskins (Imperial College) as chairman, the meeting set out to examine the pros and cons of these stochastic approaches, compared to the traditional deterministic approach.

Kerry Emanuel (Massachusetts Institute of Technology) spoke first, on why deterministic weather prediction remains important. Next came Tim Palmer (University of Oxford, ECMWF), who argued that weather and climate models should be stochastic. Then, Anders Persson (Swedish Meteorological Society) spoke about uncertainty, specifically how to turn a 'bad' thing into a 'good' thing. After a coffee break, Terry Davies (Met Office) discussed predictability, model errors and scale. Finally, Dan Cornford (Aston University) spoke about pragmatic treatment of belief and inference in modelling.

The speakers' slides, together with mp3 audio recordings of their talks, can be downloaded from this website:

<http://www.rmets.org/events/should-weather-and-climate-prediction-models-be-deterministic-or-stochastic>

Paul Williams, Meeting Organiser