

Newton Institute Scoping Meeting on:  
**Multi-scale Modelling of the Atmosphere and Ocean**

25-26 March 2009 at the University of Reading, UK

Organised by:

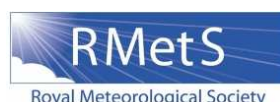
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Wednesday 25 March

- 9:30 Registration opens in Palmer building (sorry no tea or coffee)
- 10am Welcome
- 10:10 **Christiane Jablonowski**: “The Pros and Cons of Adaptive Meshes in Atmospheric Finite Volume Models”
- 10:50 **Bill Skamarock**: “Way-points on the path to a fully-adaptive atmospheric model”
- 11:30 **Coffee and posters 1**
- 12:30 **Lunch**
- 1:20 **David Wallace**: “The Newton Institute”
- 1:50 **John Thuburn**: “Wave propagation on adapting, inhomogeneous, and unstructured grids”
- 2:30 **Terry Davies**: “Limitations on ever-higher resolution and adaptive mesh refinement”
- 3:10 **Coffee**
- 3:40 **Jörn Behrens**: “Prerequisites and effects of multiscale and adaptive numerical methods in the geosciences - a perspective from tsunami simulation”
- 4:20 **Rowan Sutton**: Briefing on discussing a possible NERC Research Programme
- 4:25 **Hilary Weller**: Briefing on discussing a Newton Institute Programme proposal
- 4:30 **Breakout Discussion**: Scientific and operational issues to be addressed for adaptive modelling of the atmosphere and ocean.
- 5:45 **Wine and posters 2**
- 7:30 **Conference Dinner**

Additional sponsors: Grantham Institute for Climate Change, Imperial College London



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Thursday 26 March

- 8:40 **Francis Giraldo**: “Implicit high-order time-integration methods for adaptive multi-scale modeling of the atmosphere and ocean”
- 9:20 **Vincent Legat**: “High-order Discontinuous Finite Element Methods for Ocean Modelling”
- 10am **Matthew Piggott**: “Three-dimensional anisotropic mesh adaptivity for multi-scale ocean modelling”
- 10:40 **Coffee**
- 11am **Whole Group Discussion**: Session chairs to report back on breakout discussions followed by discussion on work to be undertaken during a Newton Institute Programme (chaired by David Wallace)
- 12:30 **Lunch**
- 1:20 **Omar Ghattas**: “Parallel AMR for petascale geophysical problems”
- 2pm **Breakout Discussion**: Preparation of paragraphs to be considered for inclusion in Programme proposal and pledges of time to be spent at the Newton Institute
- 3:20 **Coffee**
- 3:50-5pm **Whole Group Discussion**: Reporting back from breakout discussions and discussion of future plans (chaired by Hilary Weller)

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