

# NERC ADVANCED TRAINING

## UKCA Theory and Practice *Welcome*

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# Outline

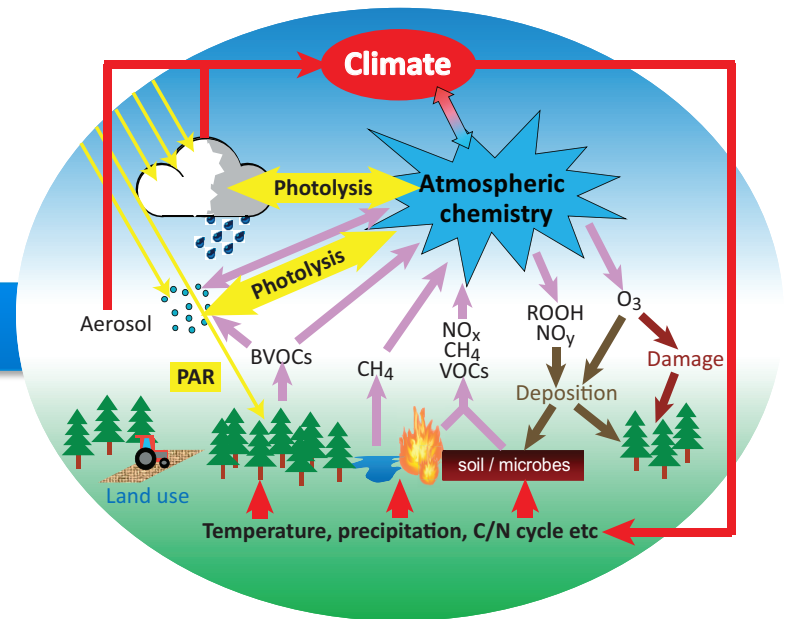
- What is UKCA and what can I do with it?
- Course Information and Schedule
- Practicals
- Next Steps
- *Housekeeping*

# What is UKCA?

- UKCA is a Climate-Chemistry-Aerosol model, built as a sub-model of the Met Office's Unified Model (UM).
- UKCA is not a *particular* collection of chemistry and aerosol schemes, but is a **framework** for putting chemistry and aerosol schemes into the UM.



Unified Model



UKCA

# What can I do with UKCA?

- UKCA was originally designed to run for long integrations covering decadal to centennial timescales, but it can also be used for air-quality forecasts
- A number of different chemistry schemes currently exist in the model, covering the troposphere and the stratosphere
  - These schemes are provided because the UKCA developers have wanted to use them for a particular purpose. If they don't suit your needs then you can add to or change them.
- One aim of the UKCA Practicals is to teach new UKCA users how to do this

# Course Information

- All up-to-date information regarding the course can be found at [www.ukca.ac.uk/wiki/index.php/UKCA\\_Training\\_January\\_2015](http://www.ukca.ac.uk/wiki/index.php/UKCA_Training_January_2015)
- Lunches and morning tea/coffee will be at the back of the Todd-Hamied room
  - Please leave the back tables clear for this
- Accommodation is in Homerton College, with evening meals in the Great Hall
- Thursday evening will be the Workshop Dinner, with drinks from 6.30pm
- There will be a group photo on the Wednesday Lunchtime, at the back of the Todd-Hamied

# Schedule

<i>Time</i>	<i>Monday 5th January</i>	<i>Tuesday 6th January</i>	<i>Wednesday 7th January</i>	<i>Thursday 8th January</i>	<i>Friday 9th January</i>
<i>9am</i>	Registration	Tracer Transport <i>Nigel Wood</i>	Chemical Solver <i>Oliver Wild</i>	Earth System Modelling <i>Fiona O'Connor</i>	Wet Scavenging <i>Zak Kipling</i>
<i>9.45</i>	Welcome <i>Luke Abraham</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
<i>10am</i>	Chemistry schemes <i>Alex Archibald</i>	Boundary Layer Processes <i>Adrian Lock</i>	Dry Deposition <i>David Stevenson</i>	Earth System Modelling <i>Gerd Folberth</i>	ESM Assessment <i>Dominic Spracklen</i>
<i>10.45</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>
<i>11.15</i>	GLOMAP-mode <i>Graham Mann</i>	Emissions <i>Carlos Ordonez</i>	<i>Student Presentations</i>	RADAER <i>Nicolas Bellouin</i>	ACTIVATE <i>Zak Kipling</i>
<i>12noon</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch &amp; Group Photo</i>	<i>Lunch</i>	<i>Lunch</i>
<i>1pm</i>	Practicals	Practicals	Practicals	Practicals	Practicals
<i>2pm</i>					
<i>3pm</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>	<i>Tea/Coffee</i>
<i>3.30</i>	Practicals	Practicals	Practicals	Practicals	<i>close</i>
<i>4pm</i>					
<i>5pm</i>					
<i>6pm</i>	<i>close</i>	<i>close</i>	<i>close</i>	<i>close</i>	

# Practicals

- The Practicals will take place in the G30 computer room, just across the foyer from the Todd-Hamied
- Content will be taken from those developed previously, and new tutorials developed for this workshop
- These will cover using the Unified Model User Interface (UMUI) rather than the new Rose GUI
  - When UKCA jobs using Rose are ready for general release, a Rose version of these practicals will be developed
- Tea/Coffee will be in the foyer at 3pm

# Next Steps

- After completing this course, you should be confident to use and adapt UKCA for your planned research
- A new UKCA release will be made within the next few weeks, based around the configuration you will have been using during the practical sessions
- More information on this configuration will be added to the UKCA wiki



**We hope you enjoy the UKCA Theory and  
Practice Workshop**