UNIVERSITY OF CAMBRIDGE

National Centre for Atmospheric Science
NATURAL ENVIRONMENT RESEARCH COUNCIL

NERC ADVANCED TRAINING

UKCA Theory and Practice

Welcome

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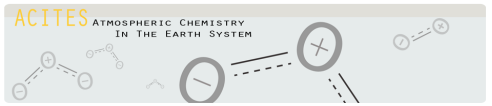
Centre *for* **Atmospheric Science**



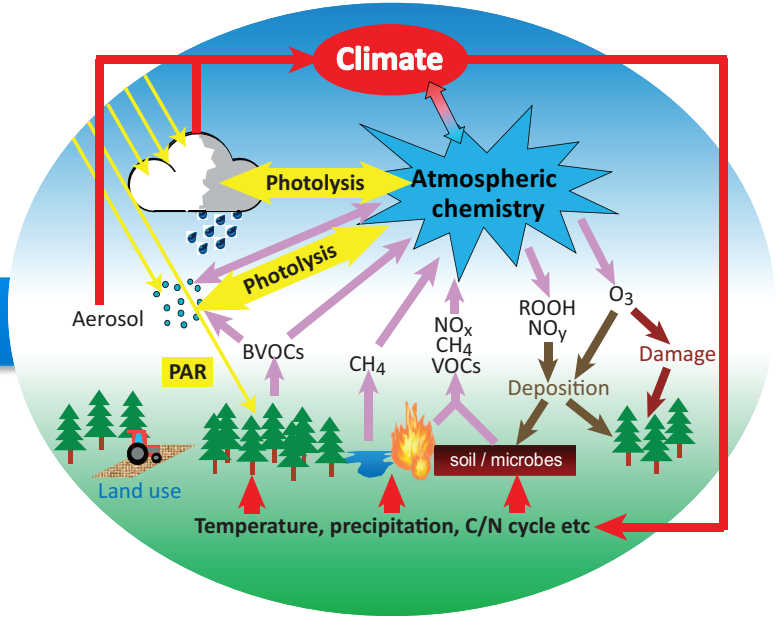
Outline

- 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_2016`

- Lunches and tea/coffee will be outside the Unilever Lecture Theatre
- 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 Friday Lunchtime (12.45), at the back of the Todd-Hamied meeting room (opposite Foyer from the G30 computer room)

Schedule

Time	Monday 5th January	Tuesday 6th January	Wednesday 7th January	Thursday 8th January	Friday 9th January
9am	Registration	Tracer Transport *Nigel Wood*	Earth System Modelling *Fiona O'Connor*	Wet Scavenging *Zak Kipling*	Experimental Design *Paul Young*
9.45	Welcome *Luke Abraham*	*Break*	*Break*	*Break*	*Break*
10am	Emissions *Alex Archibald*	Chemical Solver *Oliver Wild*	Dry Deposition *David Stevenson*	Heterogeneous Chemistry *Paul Griffiths*	Experimental Design *Paul Young*
10.45	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*
11.15	GLOMAP-mode *Graham Mann*	Photolysis *Apostolos Voulgarakis*	RADAER *Nicolas Bellouin*	ACTIVATE *Zak Kipling*	Experimental Design *Paul Young*
12noon	*Lunch & Posters*	*Lunch & Posters*	*Lunch & Posters*	*Lunch & Posters*	*Lunch & Group Photo (12.45)*
1pm	Practicals	Practicals	Practicals	Practicals	Practicals
2pm					
3pm	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*	*Tea/Coffee*
3.30pm	Practicals	Practicals	Practicals	Practicals	*close*
4pm					
5pm					
5.30pm	*close*	*close*	*close*	*close &* *Drinks and Dinner from 6.30pm*	

Practicals

- The Practicals will take place in the G30 computer room, near the main entrance to the Department.
- 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 outside the Unilever Lecture Theatre from 3pm
  - Note that food and drink is not allowed in G30.

Next Steps

- After completing this course, you should be confident to use and adapt UKCA for your planned research

- The UKCA release job RJ4.0 is a very similar configuration to the tutorial job

- More information on this configuration can be found here:

`http://www.ukca.ac.uk/wiki/index.php/Release_Job_RJ4.0`

We hope you enjoy the UKCA Theory and Practice Workshop