

SATELLITE MEETING

Climate feedbacks – setting the research agenda

Organised by Professor Eric Wolff FRS, Professor John Shepherd CBE FRS, Dr Emily Shuckburgh and Professor Andrew Watson FRS

Wednesday 10 – Thursday 11 December 2014

The Royal Society at Chicheley Hall, home of the Kavli Royal Society Centre

The meeting will immediately follow the discussion meeting *Feedbacks on climate in the Earth system* taking place at the Royal Society, London on Monday 8 and Tuesday 9 December 2014

Wednesday 10 December 2014

Day 1	
Session 1: Complementary views of research gaps/opportunities: water cycle/aerosols/clouds	
Chair/convenor: Emily Shuckburgh	
9.00	Welcome by the Royal Society and organisers
9.05	Brian Soden An assessment of radiative forcing, radiative adjustments and radiative feedbacks in climate models
9.35	Bjorn Stevens Constraints on aerosol forcing
10.05	Discussion of water cycle/aerosol/cloud feedbacks
10.30	Coffee
Session 2: Complementary views of research gaps/opportunities: cryosphere	
Chair/convenor: tbc	
11.00	Julienne Stroeve Towards improving uncertainty in future evolution of the Arctic sea ice and associated impacts
11.30	Jonathan Gregory Modelling ice-sheets as climate forcing and feedback
12.00	Discussion of cryosphere feedbacks
12.30	LUNCH
Session 3: Complementary views of research gaps/opportunities: carbon cycle	
Chair/convenor: Andy Watson FRS	
13.30	Philippe Ciais Attributing climate feedbacks between short lived forcings and well mixed greenhouse gases
14.00	Peter Cox Emergent constraints on climate-carbon cycle feedbacks
14.30	Discussion of C cycle feedbacks
15.00	Tea
15.30	Breakout groups, chaired/convened by Chris Bretherton and Tim Palmer (water/aerosol/clouds), David Vaughan and Julienne Stroeve (cryosphere), Charles Koven and Andy Ridgwell (carbon cycle)
17.00	CLOSE

Thursday 11 December 2014

Day 2	
Session 4: Reports from first breakout groups, followed by discussion Chair/convenor: Chris Bretherton, Tim Palmer, David Vaughan, Julienne Stroeve, Charles Koven	
9.00	Reports and discussion
10.30	Coffee
Session 5: Feedbacks and climate sensitivity – overviews Chair/convenor: Eric Wolff FRS	
11.00	Gabriele Hegerl What can and can't we learn from observed climate change about sensitivity?
11.30	Valérie Masson-Delmotte Extreme warm conditions and climate feedbacks
12.00	Discussion of feedbacks and climate sensitivity
12.30	LUNCH
Session 6: Breakout discussions Chair/convenor: Chris Bretherton, David Vaughan, Julienne Stroeve, Charles Koven	
13.30	Breakout groups
15.00	Tea
15.30	Reports from breakout groups
16.15	General discussion and summary of meeting
17.00	CLOSE