

# Next steps in climate science

Wednesday 2 to Thursday 3 October 2013, Organised by Sir Brian Hoskins CBE FRS

THE  
ROYAL  
SOCIETY

DAY 1		DAY 2	
09.15	Welcome by John Pethica & Brian Hoskins	How large are uncertainties in forcings and feedbacks and how can they be reduced? Chair: Joanna Haigh	
09.20	Sir Mark Walport Chief Scientific Advisor to the UK Government Chair: Susan Solomon	09.00	David Randall The role of clouds
09.30	Thomas Stocker Highlights of the Working Group 1 Report	09.30	Olivier Boucher The role of aerosols
10.00	Discussion	10.00	Discussion
10.30	Coffee	10.30	Corinne Le Quere Carbon and other biogeochemical cycles
What is happening to the climate system now and what is the outlook for this century? Chair: John Mitchell		11.00	Discussion
11.00	Peter Thorne How is our climate changing? What new evidence do we have? What are the observational challenges and opportunities?	11.15	Coffee
11.30	Discussion	What information do we have about changes in variability and extremes? Chair: Gabriele Hegerl	
11.45	Jochem Marotzke Do we understand the current global surface temperature record and what is the prospect for large-scale change in the next decades?	11.45	Dennis Hartmann How strong is the evidence that climate extremes and high impact weather have changed?
12.15	Discussion	12.15	Peter Stott Can we attribute these changes to greenhouse gas changes and what are the prospects?
12.30	LUNCH	12.45	Discussion
Chair: Julia Slings		13.15	LUNCH
13.30	Richard Allan What is the confidence in the response of the global water cycle to climate change?	Chair: Keith Shine	
14.00	Discussion	14.15	Ted Shepherd How predictable are changes in circulation?
14.15	David Vaughan Is the melting of ice sheets accelerating and what are the prospects for sea level rise?	14.45	Discussion
14.45	Discussion	15.00	Gavin Schmidt What insights can be obtained through palaeo climate research?
15.00	Tea	15.30	Discussion
Chair: Rowan Sutton		15.45	Tea
15:30	Julienne Stroeve What is the future for sea ice in the Arctic and Antarctic?	In future, what will be the best way to make climate science available to policy makers and the public? Chair: Emily Shuckburgh	
16.00	Discussion	16.15	John Ashton Reality and its enemies: climate change and its implications for the contract between science and society
16:15	Mat Collins What is the chance of abrupt or irreversible changes?	17.00	CLOSE
16.45	Discussion		
17.00	CLOSE		