

# Arctic sea ice reduction: the evidence, models and global impacts

Monday 22 – Tuesday 23 September 2014

Organised by Professor Daniel Feltham, Dr Sheldon Bacon, Dr Mark Brandon and Professor (Emeritus) Julian Hunt FRS

THE  
ROYAL  
SOCIETY

DAY 1				DAY 2			
SESSION 1: The evidence for Arctic sea ice reduction Chair: Sheldon Bacon		SESSION 2: Climate system understanding of sea ice Chair: Daniel Feltham		SESSION 3: The processes controlling sea ice evolution Chair: Daniel Feltham		SESSION 4: The impacts of Arctic sea ice loss Chair: Mark Brandon	
09:00	Welcome by Julie Maxton & Daniel Feltham						
09:05	<b>Julienne Stroeve</b> Reduction of Arctic summer sea ice extent: current and future projections	13:30	<b>Andrey Proshutinsky</b> Arctic circulation regimes	09:00	<b>Dirk Notz</b> Processes controlling the Arctic sea ice mass balance	13:30	<b>Gavin Schmidt</b> Atmospheric composition and radiative impacts of Arctic sea ice loss
09:30	Discussion	14:00	Discussion	09:30	Discussion	14:00	Discussion
09:45	<b>Ronald Kwok</b> Satellite evidence for Arctic sea ice change: age, thickness, volume, and kinematics	14:15	<b>Helene Hewitt</b> Using models to understand and predict Arctic Sea Ice	09:45	<b>Don Perovich</b> Field observations of sea ice melt in a changing Arctic	14:15	<b>Sheldon Bacon</b> Arctic freshwater and heat fluxes: modelled seasonal variability
10:15	Discussion	14:45	Discussion	10:15	Discussion	14:45	Discussion
10:30	Coffee	15:00	Tea	10:30	Coffee	15:00	Tea
11:00	<b>Peter Wadhams</b> Direct measurement of sea ice thickness and implications for sea ice disappearance and feedbacks	15:30	<b>Marika Holland</b> Factors influencing the Arctic surface albedo feedback in coupled climate models	11:00	<b>Grae Worster</b> Sea ice thermodynamics and brine drainage	15:30	<b>Jennifer Francis</b> Effects of a rapidly warming Arctic on mid-latitude weather patterns
11:30	Discussion	16:00	Discussion	11:30	Discussion	16:00	Discussion
11:45	<b>Mark Serreze</b> The role of atmospheric circulation on Arctic sea ice extent	16:15	<b>John Turner</b> Recent Changes in Antarctic Sea Ice	11:45	<b>Danny Feltham</b> Next generation sea ice physics	16:15	<b>Summary of discussions and closing remarks</b>
12:15	Discussion	16:45	Discussion	12:15	Discussion		
12:30	LUNCH	17:00	CLOSE	12:30	LUNCH	17:00	CLOSE

Draft programme – correct as of 15/04/2014 – subject to change