



RMetsS Student & Early Career Scientists Conference 2019

4th & 5th July, University of Birmingham

Wednesday 3rd July

17.30 Careers Networking Event and Ice-Breaker Event, Lapworth Museum, Birmingham University

Thursday 4th July

08.30 Registrations and Refreshments

09.00 **Welcome and Opening Address**

Liz Bentley, CEO, Royal Meteorological Society

09.10 **Social Sensing of Events using Social Media – An Experiment**

Michelle Spruce, PhD Student, University of Exeter

Session 1: Weather Extremes

Chair: Hannah Brown,

09.25 **Extracting likely Scenarios from High Resolution Ensemble Forecasts in Real-Time**

Kris Boykin, PhD Student, University of Reading

09.40 **Storm Dynamics Leading to Rare and Severe Hailstorms: Case Studies over Singapore**

Isaac Tan, Student, University of Leeds

09.55 **Westward Migration of Tropical Cyclone Rapid Intensification Over the Northwestern Pacific during Short Duration El Niño**

Yi-Peng Guo, Assistant Researcher, Nanjing University

10.10 **Thermals in Deep Convective Updrafts**

Liam Till, PhD Student, University of Reading

10.25 **The Global Distribution and Interannual Variability of Severe Convective Storm Environments**

Amethyst Annie Johnson, Student, University of Manchester

10.40 Refreshments and Networking

Session 2: Air Quality & Atmospheric Chemistry

Chair – Ed Chung

11.10 **Impact of Air Pollution on Cognitive Function**

Tom Faherty, PhD Student, University of Birmingham

11.25 **Ozone Depletion Potentials of Chlorinated Very Short-Lived Substances**

Tom Claxton, PhD Student, Lancaster University

11.40 **Air Quality and Climate Impact of Charcoal Use in Africa**

Alfred S. Bockarie, Student, University of Birmingham

- 11.55 **Megacity Carbon Emissions from Atmospheric Observations**
Daniel Hoare, PhD Student, Atmospheric Chemistry Research Group, University of Bristol
- 12.10 **Assessment of Aerosols Characteristics over Indian Mega City using Satellite and Ground Based Instrument Measurements**
Kanika Taneja, Research Scholar, Jamia Millia Islamia
- 12.25 Lunch
- 13.25 **Keynote Session: Impacts & Extreme Events**
- Building Urban Climate Resilience: An urban observatory approach**
Lee Chapman, Professor of Climate Resilience, University of Birmingham
- Forecasting Extreme Floods – 10 years of rich learning at the UK Flood Forecasting Centre**
Dr Crystal Moore, Deputy Director Head of Flood Forecasting Centre. Environment Agency
- Title Tbc**
Professor Rosalind Cornforth, Director, Walker Institute, University of Reading
- 14.25 Panel Session
- 14.55 Networking Refreshments
- Session 3: Atmospheric Dynamics*
Chair: Chris Barrell
- 15.25 **Global Sources of Gravity Waves: Ray-Tracing AIRS Measurements on the Global Scale**
Jon Perrett, PhD Student, University of Bath
- 15.40 **Impacts of North Pacific SSTs on the Stratospheric Arctic vortex**
Dr Dingzhu Hu, School of Atmospheric Sciences, Nanjing University of Information Science and Technology
- 15.55 **Vertical Structures of Precipitation Microphysics and Latent Heat from the Global Precipitation Measurement Mission Core Observatory**
Daniel Watters, PhD Student, University of Leicester
- 16.10 **Knowing Meteors, Knowing U: Using Meteor Radar to Investigate Horizontal Winds, Waves and Tides in the Mesosphere**
Shaun Dempsey, PhD Student, University of Bath, British Antarctic Survey
- 16.25 **Antarctic Atmospheric Waves and Tides in Airglow**
Anna Clark, PhD Student, British Antarctic Survey
- 16.40 **Large-Eddy Simulation of Wind Flow around a Small Forest**
Ed Bannister, Doctoral Researcher, School of Geography, Earth and Environmental Sciences, University of Birmingham
- 16.55 Poster Presentations
- 18.00 Close of Day 1
- 19.30 Conference Dinner

Friday 6th July 2018

09.00 Welcome back

09.05 **Keynote 2: Climate**

Understanding and Acting on Climate Change – Insights from Psychology and Behavioural Economics

Dr Rachel McCloy, Associate Professor in Applied Behavioural Science, School of Psychology and Clinical Language Sciences, University of Reading

Climate Change Law: Getting in on the Act

Richard Benwell, Policy Adviser to the Secretary of State, DEFRA

The Intergovernmental Panel on Climate Change Sixth Assessment Report

Dr Amanda Maycock, Associate Professor, University of Leeds

Title TBC

Victoria Gill, BBC

10.05 Panel Discussion

10.35 Refreshments

Session 4: Climate

Chair: Dominic Jones

11.05 **How will Tropical Cyclone Activity in the North Atlantic Change in a Warmer World?**

Emily Vosper, Research Student, University of Bristol

11.20 **Impact of Atmospheric Resolution on Ocean Heat Transport into the Arctic**

Sally Woodhouse, PhD Student, University of Reading

11.35 **Land Surface Temperature Climate Change Initiative: Requirements for Climate Science**

Freya Aldred, Climate Scientist, Met Office

11.50 **Stochastic Weather Generators and the Köppen Classification System**

Sarah Wilson Kemsley, Postgraduate Researcher, University of East Anglia

12.05 Lunch

13.05 **Malcolm Walker Award Lecture**

Matthew Menary, LOCEAN Sorbonne Université, Paris

13.35 Poster Presentations

14.35 Refreshments

Session 6: Met Applications

Chair: Prof Liz Bentley, Royal Meteorological Society

15.00 **Using Weather Sensitivity Analysis to Predict Business Performance**

Hannah Brown, Foundation Scientist, Met Office

15.15 **Weatherproofing for a Smarter, Resilient and More Sustainable Agri-Sector**

Joanna Raymond, PhD Student, University of East Anglia

- 15.30 **Utilising GPS Mapping Products to Obtain High Resolution Traffic Data for Air Quality Modelling**
Helen Pearce, PhD Student, University of Birmingham
- 15.45 **Key Controls on Surface Transport Weather Forecasting**
Rose Webster, Foundation Scientist, Met Office
- 16.00 Following the Forecast: The Communication of the Met Office's 3-Month Outlook
Chris Manktelow, Geography PhD Student, University of Exeter
- 16.15 **Social Sensing of Events using Social Media – The Results**
Michelle Spruce, PhD Student, University of Exeter
- 16.30 Closing Remarks and Poster Prize Winners Announcement
- 16.45 Close of conference