



## **RMetsS Student & Early Career Scientists Conference 2019**

**4<sup>th</sup> & 5<sup>th</sup> July, University of Birmingham**

### Wednesday 3<sup>rd</sup> 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 6<sup>th</sup> 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

**Title TBC**

Richard Benwell, DEFRA

**Title TBC**

Amanda Maycock, 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: Megan Bickle

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