



# RMetS 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

- 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

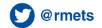
10.40 Refreshments and Networking

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

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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







