RMetS Virtual Student & Early Career Scientists Conference
29th & 30th June 2020

*Programme subject to change
Last updated: 25/06/2020

Monday 29th June

Session 1: Observations
Chair: Shaun Dempsey

09.30 2016 Indian Monsoon Cloud Development Observed using Doppler Weather Radar
Alex Doyle, PhD Student, University of Reading

Elizabeth Siddle, PhD Student, University of East Anglia

10.00 Goldmine or Bust? Crowdsourced Meteorological Data for Atmospheric Science
Jonathan Coney, MRes Student, University of Leeds

10.15 Uncertainty Assessment of Open Source Gridded Precipitation Datasets: A Case Study at Bole Synoptic Station (Pre-recorded presentation)
Gertrude Gyamfi, Teaching Assistant, Kwame Nkrumanh University & Grace Esenam Affram, Research and Teaching Assistant, Kwame Nkrumanh University

Session 2: Air Quality and Modelling - Joint session
Chair: Joshua Hampton and Thomas Faherty

Air Quality
Chair: Tom Faherty

09.30 A new Met Office kilometre-scale national air quality forecast model
Benjamin Drummond, Scientist, Met Office

09.45 DOMestic Energy Systems and Technologies InCubator (DOMESTIC) and indoor air quality of the built environment
Jinghua Li, Researcher, University of Chester

Modelling
Chair: Joshua Hampton
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<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tr>
<td>10.00</td>
<td><strong>Statistical methods to quantify and visualise the complex behaviour of clouds in the climate system</strong>&lt;br&gt;Rachel Sansom, 2nd year PGR, University of Leeds</td>
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<td>10.15</td>
<td><strong>Mechanisms of internal Atlantic Multidecadal Variability in HadGEM3-GC3.1</strong>&lt;br&gt;Wah Kin Michael Lai, PhD Student, University of Reading</td>
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<td>10.30</td>
<td><strong>The Influence of Anthropogenic Aerosols on the Aleutian Low</strong>&lt;br&gt;William Dow, PhD Student, University of Leeds</td>
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<td>10.45</td>
<td><strong>Social Refreshments &amp; Photography Competition</strong>&lt;br&gt;Chair: Amethyst Johnson</td>
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<td>11.15</td>
<td><strong>Mars’ Annular Polar Vortex</strong>&lt;br&gt;Emily Ball, PhD student, University of Bristol</td>
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<td>11.20</td>
<td><strong>What are the fine-scale features of the precipitation response to El Niño and what are the meteorological drivers behind this response?</strong>&lt;br&gt;Emma Sanig, Student (Undergraduate dissertation) now completing MSc, University of Birmingham</td>
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<td>11.25</td>
<td><strong>Marine Forecast Accuracy Improvement Techniques</strong>&lt;br&gt;Katie Hodge, Graduate trainee scientist, Met Office</td>
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<td>11.30</td>
<td><strong>Study of Propagation of Diurnal Cycle of Precipitation from Western Coast to Eastern Coast over Indian Peninsula during Indian Summer Monsoon</strong>&lt;br&gt;Lakshmi Kalavappilly Sajan, Master of research (MRes) student, University of Leeds</td>
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<td>11.15</td>
<td><strong>How important are Post-Tropical Cyclones to European Windstorm Risk?</strong>&lt;br&gt;(Pre-recorded)&lt;br&gt;Elliott Sainsbury, PhD student, University of Reading</td>
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<td>11.20</td>
<td><strong>The role of increasing vertical resolution on the detection and attribution of North Atlantic storms</strong>&lt;br&gt;(Pre-recorded)&lt;br&gt;Erin Walker, PhD student, University of Bristol</td>
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<td>11.25</td>
<td><strong>Effects of cumulus physics, nudging and air-sea flux parameterizations using ERA5 as initial and boundary conditions on the intensity and trajectory of Typhoon Haiyan (2013)</strong>&lt;br&gt;(Pre-recorded presentation)&lt;br&gt;Rafaela Jane Delfino, Dual PhD Student, University of Reading and University of the Philippines-Diliman</td>
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11.30 Evaluation of a prediction for road surface conditions by METRo model with ASOS (Pre-recorded presentation)
Taeyoon Eom, Student, Integrated Circuit Design Lab., Department of Electronics Engineering, Chungnam National University, 99 Daehak-ro, Yuseong-gu, Daejeon 34134, Republic of Korea

11.35 How is human-induced climate change altering extreme wildfire events? (Live presentation)
Zhongwei Liu, PhD researcher, Centre for Agroecology, Water and Resilience, Coventry University, Coventry, UK

12.00 – 13.00 Lunch break

Session 4: Poster session B
Chair: Paloma Trascasa Castro

13.00 Inferring London’s Methane Emissions from Atmospheric Measurements
Daniel Hoare, PhD student, University of Bristol

13.05 Extracting likely scenarios from high resolution forecasts in real-time
Kris Boykin, PhD student, University of Reading

13.10 Which Dynamical Factors Influence the Seasonal Predictability of Winter Windstorms over the North Atlantic/European Region?
Lisa Degenhardt, PhD student, School of Geography, Earth and Environmental Science, University of Birmingham UK

13.15 Using model nudging to constrain rapid adjustment radiative forcing from short-lived anthropogenic pollutants
Max Coleman, First year PhD student, University of Reading

13.20 Future drought risk in East Anglia: from the meteorological to the impact perspective
Nele Reyniers, PhD student, University of East Anglia

13.45 Session 5: Keynote speakers - Climate Change
Chair: Joanna Raymond & Kris Boykin

Tamsin Edwards, Senior Lecturer in Physical Geography

Julieanna Powell-Turner, Centre for Research into Environmental Science and Technology, University of Chester

Joseph Howe, Thornton Energy Research Institute
15.15 – 16.00 Icebreaker weather quiz  
Chair: Thomas Faherty

Tuesday 30th June

Session 6: Climate & Environmental Change  
Chair: Joanna Raymond

09.30 Quantifying methane fluxes and their source using a Bayesian inverse model and observations of co-emitted tracers  
Alice Ramsden, PhD Student, University of Bristol

09.45 What is the cause of a spontaneous rapid climate change in transient simulations of the last ice age to the present?  
Brooke Snoll, MRes Student, University of Leeds

10.00 Using remote sensing to assess the climate mitigation potential of secondary forests in the Brazilian Amazon  
Viola Heinrich, PhD Student, University of Bristol

10.15 Mountain forest change and the impact on the water cycle of large river basins  
(Pre-recorded presentation)  
Xinyue He, PhD Student, University of Leeds

10.30 Climate change and the extreme heat related impacts on the London Underground infrastructure  
Sarah Greenham, PhD Student, University of Birmingham

Session 7: Dynamics and Meteorological Applications | Joint session  
Chair: Amethyst Johnson and Ben Pickering

Dynamics  
Chair: Amethyst Johnson

09.30 Comparison of the prediction of Indian monsoon low-pressure systems by Subseasonal-to-Seasonal prediction models  
Akshay Deoras, PhD Student, University of Reading

09.45 Climatology and Structure of Mesoscale Convective Systems in Southern West Africa  
Michael Baidu, PhD Researcher, University of Leeds

10.00 Tides of the Polar Mesosphere-Lower-Thermosphere: Observations and model comparisons.  
Shaun Dempsey, PhD Student, University of Bath
10.15 Can we wave goodbye to parameterisations?
Timothy Banyard, PhD Student, University of Bath

Meteorological Applications
Chair: Ben Pickering

10.30 Using aircraft accidents and incidents to evaluate the skill of clear-air turbulence diagnostics
Mark Prosser, PhD Researcher, University of Reading

10.45 User-defined regimes: improving forecasts of good drying weather for farmers in Oxfordshire
Alicia Gleeson, Meteorologist, Lake Street Consulting Ltd

11.00 – 11.30 Social refreshments & Photography competition

Session 8: Poster session C
Chair: Jinghua Li and Ben Pickering

11.30 On the linearity of the stratospheric and Euro-Atlantic sector response to ENSO
Paloma Trascasa Castro, PhD student, University of Leeds

11.35 Estimating charges on aerosols near the surface of Venus
Amethyst Johnson, student, University of Manchester

11.40 Study of the meteorological profile of Ahmedabad City and its relation to air pollutant dispersion in the city.
Dhyey Solanki, Research intern, Global Centre of Environment and Energy (GCEE), Ahmedabad University (AU)
Rudradutt Thaker, Student, Global centre for Environment and Energy (GCEE), Ahmedabad University
Mihir Prajapati, Student, Global centre for Environment and Energy, Ahmedabad University

11.45 Investigating how the U.S. insurance industry could be impacted by the use of comprehensive flood maps: Hurricane Harvey Case Study
Steph Hodsman, GIS and Hazard Mapping Specialist, JBA Risk Management Ltd

11.50 Meteorological Influences on Lightning Strength in a Changing Climate
Isabel Smith, Final year undergraduate on an integrated Masters, University of Reading

11.55 Weatherproofing for a smarter, resilient, and more sustainable agri-sector
Joanna Raymond, PhD student, University of East Anglia

12.15 – 14.00 Lunch break
14.00  **Session 9: Keynote Speaker Session – Science communications**
Chairs: Hannah Brown & Shaun Dempsey

Clare Nasir, *Met Office*

**Podcasting for climate science- Motivation, benefits, and outreach**
Dan Jones, *British Antarctic Survey*

**The world of journals**
Becky Hemingway, *ECMWF*

15.15  Closing Remarks and Prize Winners Announcement

16.00  Close of conference