RmetS Early Career & Student Conference Programme
1 & 3 July 2024

Monday 1 July

12.00 Registrations, Refreshments & Ice Breaker

13.00 Welcome and Opening Address
Prof Liz Bentley, CEO, Royal Meteorological Society and Met Office

13.15 Malcolm Walker Presentation
Session 1: Weather and Climate Predictions

13.45 Decadal Predictability of Surface Variables over Europe and Relevance for the Energy Sector
Ben Hutchins (he/him), PhD Student, Department of Meteorology, University of Reading

14.00 Exploring Physics-Dynamics Coupling with Moist Shallow Water Models
Nell Hartney (she/her), PhD Student, University of Exeter

14.15 Seasonal Forecasting of the European North-West Shelf Seas: Limits of winter and summer sea surface temperature predictability
Jamie Atkins (he/him), PhD Student, University of Exeter

14.30 Wave and Wind Ensemble Forecasting with a Regional Coupled System
Vivian Fraser-Leonhardt, Industrial Placement - Regional Coupled Modelling, Met Office

14.45 Refreshment and Networking Break

Session 2: Applications

15.30 How does the Met Office Knowledge Integration Team get Climate Science into Government?
Rebecca Sawyer (she/her), Foundation Climate Scientist, The Met Office

15.45 Modelling the Carbon Sequestration of the UK Afforestation under Future Climate using JULES-RED
Dr Hsi-Kai Chou, Research Associate, University of Exeter

16.00 Global Distribution of “Dark Doldrums”
Tabea Rahm (she/her), Doctoral Researcher, GEOMAR Helmholtz Centre for Ocean Research Kiel

16.15 An Examination of Climate Sensitive Diseases - A Case of Malaria in Ghana
Ekuwa Adade (she/her), Doctoral Researcher, Brunel University London

16.30 How Will Changes in Global Climate Impact on British Lifestyles?
Lottie Woods (she/her), Foundation Climate Scientist, Met Office
16.45 **Influence of Weather Regimes on European Winter Energy Demand and Renewable Generation**  
Emmanuel Rouges (he/him), Postdoctoral Research Assistant, Department of Meteorology, University of Reading

17.00 Launch of Photographic Competition

17.10 Opportunity to view the Posters

18.00 Close of Day 1

18.30 Coaches to the Evening Activities

19.00 Evening Dinner and Quiz

22.00 Close of Evening Event

**Tuesday 2 July**

09.00 Welcome Day 2

09.10 **Keynote Session: Miscommunication**  
Met Office and Royal Meteorological Society

10.10 Refreshment and Networking Break

Session 3: Atmospheric Dynamics

10.50 **Clouds and Seasonality on Terrestrial Planets with Varying Rotation Rates**  
Daniel A. Williams (he/him), PhD Student, University of Exeter

11.05 **Exploring the Dynamics of UK Summertime Convective Storms: Insights from the Wessex Convection Experiment (WesCon) 2023**  
Aoife McQuaid (she/her), Convective Storm Research Industrial Placement, Met Office, University of Edinburgh

11.20 **Stalling Storms in The Southwest Indian Ocean Basin and its Implications on Rainfall**  
Dan Green (he/him), Post Graduate Teacher & PhD Student, University of Bristol

11.35 **Tracking Mesoscale Convective Systems Over South America in Convective-Permitting Model Simulations**  
Harriet Gilmour (she/her), PhD Student, University of Exeter

11.50 **The AMV Teleconnection to the Pacific**  
Arundhati Kalyan (she/her), Postgraduate Researcher/PhD Student, School of Earth and Environment, University of Leeds

12.05 **Title tbc**  
Speaker tbc

12.20 Lunch
Session 4: Atmospheric Chemistry

13.40 Evaluating Disparities in Air Pollution as a Function of Ethnicity, Deprivation and Sectoral Emissions in England
Nathan Gray (he/him), PhD Student, University of York

13.55 Gas Ash-Particle Separation and the Role of Aggregation in Volcanic Plumes
Jack Campbell (he/him), PhD Student, University of Cambridge

14.10 Novel Approaches to Observationally Constrain Aerosol Effects in Climate Models
Léa Prévost (she/her), Postgraduate Researcher, University of Leeds

14.25 Has Imposing Stricter Limits on Marine Fuels Inadvertently Boosted Global Warming?
George Jordan (he/him), Foundation Scientist, Met Office

14.40 Refreshments

15.20 L F Richardson Award Winner 2023 Lecture
Dr Indrani Roy, Climate Scientist, University College London

15.55 Keynote Talk
Olga Buskin (she/her), Head of People, Culture and Sustainability, OpenWeather

16.25 OpenWeather Challenge Winner Announcement

16.45 Poster Session 1

18.15 Networking event at The Met Office

20.00 Close of Day 2

Wednesday 3 July

09.00 Welcome Back

Session 5: AI and Statistics

09.05 Using Unsupervised Machine Learning to Understand Drought Severity in Urban Vegetation
Naya Desai (she/her), PhD Student, University of Birmingham

09.20 Emulation of Sub-Grid-Scale Atmospheric Turbulence in a Large Eddy Simulation using Deep Learning
Sambit Kumar Panda (he/him), PhD Student, Department of Computer Science, University of Reading

09.35 Machine Learning Sub-Grid Variability to Perturb Parameterisations
Helena Reid (she/her), Modelling Scientist in Machine Learning, Stochastic Physics & Ensembles, Met Office
09.50  A Graph Neural Network Emulator for Greenhouse Gas Emissions Inference
        Elena Mayoral (she/her), PhD Student, University of Bristol

10.05  Correlation of Wind and Precipitation Annual Aggregate Severity of European Cyclones
        Toby P. Jones (he/him), PhD Student, University of Exeter

10.20  Refreshments

Session 6: Observations

10.55  Towards a Blended Satellite-Station Sunshine Duration Dataset for the UK
        Josh Blannin (he/him), Foundation Climate Observation Scientist, Met Office

11.10  Improving Hydrological Forecasts Along the Nile: An in-depth analysis of the different satellite precipitation products over Uganda for the period 2018-2022
        Douglas Mulangwa (he/him), PhD Researcher; Hydrologist, University of Reading, UK and Assessment, Directorate of Water Resources Management, Ministry of Water and Environment, Uganda

11.25  Automated Weather Impact Data Collection
        Lucy Seabourne (she/her), Weather Impacts Industrial Placement, Met Office

11.40  Indonesia’s Extreme Rainfall: A sub-daily, observational analysis of spatio-temporal patterns
        Imaduddin S. Faalih (he/him), PhD Student, Newcastle University

11.55  Poster Session 2

13.15  Lunch

Session 7: Hazards

14.30  Emerging River Flow and Hydrological Drought Trends in Great Britain
        Wilson Chan (he/him), Hydroclimatologist, UK Centre for Ecology & Hydrology

14.45  Transitions in UK Hydrological Extremes
        Rachael Armitage (she/her), Hydrological Analyst, UK Centre for Ecology & Hydrology (UKCEH)

15.00  Statistical and Deep Learning Approaches to Identifying Dry Intrusion Outflows
        Owain Harris (he/him), PhD Student, University of Exeter

15.15  Characterising Cold-Wet and Cold-Dry Compound Events in the United Kingdom
        Kanzis Mattu (she/her), PhD Researcher, University of Strathclyde

15.30  Convective Environment of Severe Hail and Tornado Producing Storms in the United Kingdom
        Henry Wells (he/him), Doctoral Researcher, Department of Geography and Environment, Loughborough University

15.45  Closing Remarks and Prize Winners Announcements
16.00 Close of Conference