RMetS Early Career & Student Conference Programme
4 & 5 July 2023

Monday 3 July 6.30pm – 9pm BST

Ice-Breaker Event

Tuesday 4 July

08.30   Registrations, Refreshments & Ice Breaker

09.00   **Welcome and Opening Address**
Prof Liz Bentley, CEO, Royal Meteorological Society

09.10   **Malcolm Walker Presentation**

09.40   Move into Parallel Oral Sessions

	Session 1 – Climate Chair: Ned Williams, Student Conference Committee Member	Session 2 – Forecasting & Nowcasting Chair: Ashar Aslam, Student Conference Committee Member
09.45	**Multi-Decadal Variations in Seasonal Forecasts**	**Statistical Post-Processing of Cloud Base Height**
	Matthew Wright (he/him), DPhil Student, University of Oxford	Marcus Spelman (he/him), Scientist, Met Office
10.00	**Simple Modelling of Marine Biomass Regeneration**	**Evaluating Optical Flow Methods for Storm Prediction in the Maritime Continent**
	Elisavet Baltas (she/her), PhD Student, Centre for Climate Repair, University of Cambridge	Joey Smith (he/him), PhD Student, University of Leeds
10.15	**Investigating the Value added to Drought Projections by the CMIP5 Downscaled Models in the UKCP Convection-Permitting Ensemble**	**Operational Forecasting On-the-Fly**
	Matt Grant (he/him), Foundation Scientist, UK Met Office	Laurents Marker (he/him), Software Developer, National Centre for Atmospheric Science
10.30	**Response of Atmospheric Variability in the Northern Hemisphere Winter to Past Climate Conditions and Elevated CO2 Levels**	** CoastSafe: Early Warning System for the Rush-Portrane Coastline*
	Arthur Oldeman (he/him), PhD Candidate, Utrecht University, the Netherlands	Daniel O'Brien, Student, Maynooth University
10.45	Introduction into Discord and Virtual Poster Session	

11.15 Refreshment Break

11.45 Parallel Oral Sessions

	Session 3 – Data Science Chair: Alex Chamberlain-Clay, Student Conference Committee Member	Session 4 – Air Quality and Atmospheric Chemistry Chair: Ned Williams, Student Conference Committee Member
11.45	**Improving Vertical Detail in Simulated Temperature and Humidity Data Using Machine Learning**	**Climate Modelling the Atmospheric and Environmental Effects of Hydrogen**
	Joana Rodrigues (she/her), AI Aided Hybrid Modelling Scientist, Met Office	Hannah Bryant (she/her), PhD Student, University of Edinburgh
12.00	**Reducing the Overhead of Coupled Machine Learning Models between Python and Fortran with an Application to Gravity Wave Parameterisations**	**3D Simulations of the Archean Earth including Photochemical Haze Profiles**
	Jack Atkinson (he/him), Research Software Engineer, Institute of Computing for Climate Science, University of Cambridge	Mei Ting Mak (Martha, she/her), PhD Student, University of Exeter
12.15	**A Machine Learning Approach to Study Coastal Flooding Caused by Extreme Sea Level Changes**	**New Pollen Forecasting System at the Met Office**
	Alice Re (she/her/they/them), PhD Student, Interuniversity Department of Regional and Urban Studies and Planning (DIST), Politecnico and Università di Torino	Katie Coward (she/her), Foundation Scientist, The Met Office
12.30	**A Flexible Data and Knowledge-driven Method for Identifying Climate Drivers to Predict Summer Conditions in Northeast China**	*Air Pollution in the United Kingdom**
	Nathan Creaser (he/him), Scientific Software Engineer, Met Office	Dimitra Gkouzouli (she/her), Research Lead, Six Degrees Edinburgh & Fenja Kroos (she/her), Researcher, Six Degrees Edinburgh
12.45	**Investigating the Benefits of using Reforecasts for Statistical Post-Processing of Weather Forecasts**	**How well are Aerosol-Cloud Interactions Represented in Climate Models?**
	Ben Hooper (he/him), Foundation Scientist, Met Office	George Jordan (he/him), Foundation Scientist, Met Office Hadley Centre

13.00 Lunch Break

14.00   Launch Photographic Competition

14.05   **Keynote Speakers – Early Career Panel Session**
Chair: Prof Liz Bentley, CEO, Royal Meteorological Society

Speakers: To include early career speakers and panel session

15.35   Refreshment Break

16.05 Parallel Oral Sessions

	Session 5 – Tropics Chair: Fran Morris, Student Conference Committee Member	**Session 6 – Modelling** Chair: tbc
16.00	**Understanding Climate Drivers of Drought and Fire Multi-Hazards in Indonesian Borneo using Climate Model and Seasonal Hindcast Ensembles**	**A Lagrangian View to the Evolution of Convective Updrafts**
	Timothy Lam (he/him), PhD Student, University of Exeter	Thomas J. Hutton, PhD Student, University of Exeter
16.15	**Exploring the Compound Nature of Extreme Meteorological Events in Brazil using an Events-Based Approach**	**On Alleviating Semi-annual Oscillation Wind Biases in Climate Models**
	Anna Bradley (she/her), Foundation Scientist – Climate Impacts Modelling, Met Office	Aleena M J (she/her), DPhil Student, University of Oxford
16.30	**Evaluation of Extreme Weather Events in the Tropics Using ECMWF Forecast-Model Outputs**	**Stochastic Data Adapted AMOC Box Models**
	Olivia Vashti Ayim (she/her), PhD Candidate, University of Oxford	Ruth Chapman (she/her), Phd Researcher, University of Exeter and Met Office
16.45	**Sub-Saharan African Precipitation Responses to Aerosol Forcing**	**Dynamically Calculated Mixing Lengths in Shallow Cumulus Convection**
	Catherine Toolan (she/her), PhD Student, University of Reading	Alanna Power (she/her), PhD Student, University of Reading

17.00   Poster Session 1

18.15   Close of day 1

19.30   Evening Social in Central Reading

Wednesday 5 July

09.00   Welcome Back

Session 7: Applications
Chair: Alex Chamberlain-Clay, Student Conference Committee Member

09.05   **How will City Temperatures Respond to Changes in Climate?**
Sarah Berk (she/her), PhD Researcher, University of East Anglia

09.20   **Multivariate Compound Cold Events in the UK**
Kanzis Mattu (she/her), PhD Candidate, University of Strathclyde

09.35   **The Future of Surface Transport Forecasting at the Met Office**
Alice Lake (she/her), Scientist – Post-processing Applications, Met Office

09.50   **Using Expired Weather Forecasts to Supply up to 10 000 years of Weather Data**
Petr Dolezal (he/him), PhD Candidate, AI for the research of Environmental Risk (AI4ER), University of Cambridge

10.05   Refreshments

Session 8: Observations
Chair: Emily Lear, Student Conference Committee Member

10.35   **Intercomparison of Observations from Citizen Weather Station Networks and Applications**
Chris Squires (he/him), Foundation Scientist, Met Office

10.50   **Characterising Ice Particle Size Distributions Using In Situ Observations**
Rosie May Mammatt (she/her), PhD Student, University of Reading

11.05   **Exploring Climate Conditions on Mount Everest's Upper Slopes Using In-Situ Observations and Model Outputs**
Lorenzo Minola (he/him), Postdoctoral Research Fellow, University of Gothenburg (Sweden)

11.20   **Regional Climate Trend Analyses for Aqua MODIS Land Surface Temperatures**
Abigail Waring, PhD Candidate, University of Leicester

11.35   **Ray-Tracing Satellite Observations of Gravity Waves**
Phoebe Noble (she/her), PhD Student, University of Bath

11.50   Poster Session 2

13.00   Lunch

14.00   **Miscommunication and Trolling Workshop**

15.30   Refreshments

Session 9: Applications
Chair: Fran Morris, Student Conference Committee Member

16.00 **How the Met Office took TikTok by Storm**
Emma Lawrence (she/her), Content Production Co-ordinator, Met Office

16.15 **Projections of the Future Heat Health Burden Under Climate, Socioeconomic and Demographic Change**
Rebecca Cole (she/her), PhD Student, London School of Hygiene and Tropical Medicine

16.30 **Title TBC**
Speaker TBC

16.45 **How Public Sector Organisations are Adapting to Climate Change: A Scottish case study**
Emma L Yule (she/her), PhD Researcher & Tutor, University of Edinburgh

17.00 Closing Remarks and Prize Winners Announcements

17.15 Close of Conference

Virtual Presenter