In Partnership with:

4th UK National Climate Impacts Meeting

5th – 6th September 2024

Henry Daysh Building, Newcastle University

Day One, Thursday 5th September

09:00 – 09:30: Registration

09:30-11:00 Session 1, Convener: Hayley Fowler

09:30-09:35: Welcome from Prof. Hayley Fowler

09:35-10.05: Methodology for the 4th Climate Change Risk Assessment – Chris Parker (Climate Change Committee)

10:05-10.20: Heat and health impacts in the UK - adaptation – Helen Macintyre (UK Health Security Agency)

10:20-10.35: Complex, interacting climate risks: latest approaches and perspectives – Chris White (University of Strathclyde)

10:35-10.50: Climate impacts for societal impact: the case of the high-fibre white loaf – Andy Challinor (University of Leeds)

10:50-11.05: Attribution of extreme precipitation related to a fatal derailment near Carmont, Scotland – Simon Tett (University of Edinburgh)

11:00-11:30 Tea/Coffee break

11:30-13:00: Session 2: Six 15-minute presentations – Jessica Holmes

11:30-11:45: The climate of a net-zero world: from global to regional changes – Andrea Dittus (University of Reading / NCAS)

11:45-12:00: Characterising cold-dry and cold-wet compound events in the United Kingdom – Kanzis Mattu (University of Strathclyde)

12:00-12:15: Application of a hybrid tree growth model to assess yield impacts under future climate – Suzanne Robinson (Forest Research)

12:15-12:30: Assessing Climate Risks to Net Zero Power System in Great Britain – Jaise Kuriakose (University of Manchester)

12:30-12:45: Representative Transformation Pathways (RTPs): A new tool for food system and climate change research and assessment – Russel Cain (University of Leeds)

12:45-13:00: Where does machine learning fit in the evolving landscape of early warning systems for food security? – Chetan Deva (University of Leeds)

13:00-14:00 Lunch

14:00-15:30 Session 3, Convener: Hannah Bloomfield

14:00-14:15: Towards an adaptation targets principles in practice framework to inform more effective adaptation policy – Rachel Harcourt (University of Leeds)

14:15-14:30: Climate Resilience from the viewpoint of an Electricity Distribution Company – Phil McFarlane (Electricity North West)

14:30-14:45: Wind driven power outages: the amplifying effect of antecedent rainfall, wind direction and seasonal factors – Colin Manning (Newcastle University)

14:45-15:00: Assessing the impact of future extreme heat on electrical transmission assets in the UK – James Mollard (University of Edinburgh)

15:00-15:15: Uncertainty Quantification and Sensitivity Analysis for Resilient Infrastructure Systems: application to water and wind power systems - Saskia Salwey (University of Bristol)

15:15-15:30: An agent-based modelling framework to analyse and simulate extreme rainfall events towards a resilient transport sector – David Alvarez Castro (Newcastle University)

15:30-16:00 Tea/Coffee break

16:00 - 17:00 Session 4, convener: Amy Green

16:00-16:15: Applying climate projections in water utilities – a ‘world-first’ example of translating climate science into practice – Megan Fothergill (JBA Consulting)

16:15-16:30: How can we invest wisely in Blue-Green Flood Risk Management? – Asid Ur Rehman (Newcastle University)

16:30-16:45: Climate impacts on land-use trade-offs between carbon sequestration, biodiversity and food production in GB – Sarah Gall (University of Oxford)

16:45-17:00: The Novelty of the Huracán Project in Understanding Risks Posed to the UK by Tropical and Post-Tropical Cyclones in a Changing Climate – Haider Ali (Newcastle University)

17:00-18:30 Poster Session

Day Two, Friday 6th September

09:00-10:15 Session 5, Convener: Haider Ali

09:00-09:15: Lived experience of extreme weather in the UK - Joanne Godwin (University of Bristol)

09:15-09:30: On the present and future changes in heatwaves over the UK and associated health impacts – Raj Tiwari (University of Hertfordshire)

09:30-09:45: Resilience of care homes to overheating – Charles Simpson (University College London)

09:45-10:00: Mainstreaming climate action in local government: an example from Sheffield - Nikki Rust (Sheffield City Council)

10:00-10:15: How should we estimate and characterise extreme weather hazards in future climates, given major uncertainties? - Peter Watson (University of Bristol)

10:15-11:15 Posters and Tea/Coffee break

11:15-12:15 Session 6: How can we improve climate-based education and stakeholder engagement across the UK?

This session will comprise lightning talks followed by a discussion with all participants.

1. RMetS: Science engagement fellowship activities and special issue
2. Craig Robson (Newcastle University): CPD offer for climate change
3. Elle Young (Newcastle University): Introducing the Climate Ambassadors Programme
4. David Brayshaw (University of Reading): Engagement with the Energy Sector

In Partnership with:

12:15-13:15 Lunch

13:15-14:45 Session 7, Convener: Colin Manning

13:15-13:30: Implications of Earth system tipping points for the UK – Richard Betts (University of Exeter and Met Office Hadley Centre)

13:30-13:45: Modelling for climate change allowances in Northern Ireland – Anthony Hammond (JBA)

13:45-14:00: Characterising and quantifying the UK climate change commitment over the 21st Century – Suraje Dessai (University of Leeds)

14:00-14:15: Climate Adaptation Planning in the Built Environment: A Risk Science Perspective - Irem Dikmen (University of Reading)

14:15-14:30: Understanding and serving the climate science needs of the finance sector – Jason A. Lowe (Met Office and University of Leeds)

14:30-14:45: Closing Remarks and Perspective from Hayley Fowler (Newcastle University)

Posters:

1. Near-term climate prediction for energy system security – Ben Hutchins (University of Reading)
2. Global Projections of Urban Heat Waves with Machine Learning – Zhonghua Zheng (University of Manchester)
3. Introducing the Climate Ambassadors Programme - Elle Young (Newcastle University)
4. Can wet heatwaves be represented by CMIP6 models and bias-corrected NEX-GDPP-CMIP6? - Shuiqing Yin (University of Oxford)
5. CPD Offer for climate change - Craig Robson (Newcastle University)
6. A Novel Generative Diffusion Model Outperforms Existing Statistical Downscaling Techniques - Sebastian Moraga (Fathom)

7. Climate Services for Finance – Karthik Ramesh (Climate X)

8. Water temperature and dissolved oxygen trends recorded by monitoring data since 1990 - Alec Hutchings (Environment Agency)

9. Variability of carbon balance in oil palm production: lessons learned from crop model simulations - Lisma Safitri (University of Leeds)

10. Climate information use in organisations in Europe - Suraje Dessai (University of Leeds)

11. Heat-Wave-Intensity-Duration-Frequency (HWIDF) Curve and the Impact of Seven Air Quality Parameters on Heat Waves in Major Climatic Zones of India – Priyankar Kumar (IIT Kharagpur)

12. Assimilation of INSAT-3DR Rapid Scan WV/VIS/TIR AMVs in the WRF model: A case study for Tauktae Tropical Cyclone - Adil Muhammed I K (Cochin University of Science and Technology)

13. Impacts of extreme weather driven multi-hazards: current and future concerns from rural Scotland – Lou Brett (University of Strathclyde)

14. Perception of climate change and coffee farming level adaptability choices in LMICs - Rebecca Nekesa (Newcastle University)

15. Correlation of wind and precipitation annual aggregate severity of European cyclones - Toby Jones (University of Exeter)

16. Comprehensive Drought Monitoring in Syria: Integrating Climate Indices and Land Use Practices - Impacts and Implications - Shifa Mathbout (European University Cyprus)

17. Quantifying the importance of climate uncertainty and adaptation strategies on flood losses - Georgios Sarailidis (University of Bristol and JBA Risk Management)

18. Towards a storyline approach for representing uncertainty in climate change flood losses: A case study for Europe - Jennifer Dentith (JBA Risk Management)

19. Seasonal forecasting of the European North-West shelf seas - Jamie Atkins (University of Exeter)

20. Mapping Weather to Electricity Demand for Forward Looking Risk Calculations - Aninda Bhattacharya (University of Edinburgh)

21. Changing spatio-temporal characteristics of extreme rainfall events under climate change using high resolution CPM projections - Laura Devitt (University of Bristol)

22. The WTW Research Network and nearly two decades of creative private-public partnerships on the science of weather and climate risks - Daniel Bannister (WTW)

23. Global warming level storylines of sea-level rise for the UK - Jennifer Weeks (Met Office)

24. Understanding and quantifying the impact of a changing climate in energy systems – David Brayshaw (University of Reading)

25. Spatiotemporal climate variability and meteorological drought characterization in Ethiopia - Jean Moussa Kourouma (National Agency of Meteorology)

26. Quantification of coastal and pluvial flooding losses under current and future climate scenarios: An assessment of an Oil Refinery in Australia – Aimee Colgate and Jennifer Bonner (WTW)

27. Multi-hazard (risk) Communication through Indicators: From Multi-hazards Modelling to Decision Support in Disaster Risk management in Europe - YoungHwa Cha (University of Strathclyde)

28. How should we estimate and characterise extreme weather hazards in future climates, given major uncertainties? - Peter Watson (University of Bristol)

29. Unveiling global sub-daily precipitation extremes: Insights and development of the INTENSE Project – Amy Green (Newcastle University)