## 9th National Climate Dynamics Workshop

University of Bath, 17-19 June 2024 TIME SESSION PRESENTER TITLE MONDAY 17th June REGISTRATION & BADGE COLLECTION from 13:00 @ Building 10 East, Unviersity of Bath 13:00 WELCOME & HOUSE KEEPING Almowafy & Hindley 14:00 14.15 Christopher O'Reilly Reinhard Schiemann Signal-to-noise errors in early winter Euro-Atlantic predictions caused by weak ENSO teleconnections and pervasive North Atlantic jet biases Blocking simulation in global models – are we getting there? 14:30 MODEL ERRORS 1 Missing increase in summer Greenland blocking in climate models Factors affecting climate model responses to Atlantic Multidecadal Variability 14:45 lacob Maddison Matthew Patterson 15:00 15:15 15:30 BREAK 15:45 Adam Scaife Spread and Errors in Forecast Ensembles 16:00 spread and Errors in Forecast Ensembers Recolibration of extreme multi-decodd trends in the North Atlantic Oscillation A Forensic Investigation of Climate Model Biases in Teleconnections: The Case of the Relationship between ENSO and Stratospheric Polar Vortex Machine learning for bias correcting seasonal forecasts 16:15 Rosie Eade MODEL ERRORS 2 Xiaocen Shen Steve Hardiman 16:30 16:45 17:00 17:15 17:30 POSTERS 17:45 AND 18:00 REFRESHMENTS 18:15 18:30 18:45 19:00 TUESDAY 18th June Emmanuel Rouges Influence of weather regimes on European winter energy demand and renewable generation 09:00 Seasonal Predictability of the East Atlantic Pattern in Late Autumn and Early Winter Investigating signals in summer seasonal forecasts over the North Atlantic/European region 09:15 Hazel Thornton Se PREDICTABILITY 1 09:30 Julia Lockwood 09:45 Matthew Priestley Forced changes and internal variability in projections of European Storminess 10.00 BREAK 10:15 10:30 Predictability of Indian Ocean precipitation and its teleconnections to the North Atlantic Oscillation during early winter Identifying Weather Regimes and Assessing Regime-Driven Renewable Energy Potential at climatic scales using CMIP6 models and Machine Learning Techniques over Africa 10:45 Muhammad Adnan Abid PREDICTABILITY 2 11:00 Rajeev Sukumara Kurup Rhidian Thomas 11:15 Hindcast-based estimates of recent climate trends Scott Osprey Ayesha Hussain Charting a New Course of Earth Exploration - the Changing-Atmosphere Infra-Red Tomography Explorer (CAIRT) 11:30 PROCESSES 1 11:45 Modelling Elevated Carbon Dioxide Concentrations and Temperature Perturbations in a Bo eal Peatland Forest 12:00 Joshua Talib The impact of anomalous soil moisture on jet characteristics - a focus on the East African Turkana jet 12:15 12:30 12:45 LUNCH (+ GROUP PHOTO) 13:00 13:15 13:30 Manoj Joshi Peter Berthelemy Haruka Okui Emily Lear 13:45 Evaluating the effect of the global electric circuit on the climatic response to El Niño sea surface temperature anomalies Results from a Clinatology of Large-Scale Atmospheric Gravity Waves in AIRS Roles of Gravity Waves in Preconditioning of a Stratospheric Sudden Warming The diurnal cycle of gravity waves in GNSS-RO data 14:00 14:15 PROCESSES 2 14:30 George Datseris 14:45 Stratocumulus to cumulus transitions in an energy balance model 15:00 15:15 BRFAK 15:30 15:45 Andrew Styles Spatial and Temporal Patterns of Southern Ocean Ventilation OCEANS Balaji Senapati Crucial Role of Mixed-Layer in Tropical Atlantic Multidecadal Variability 16:00 AND 16:15 Benjamin Harvey Evidence of a Recent Decrease in Wintertime Nordic Seas Storminess South Pacific hydroclimate response to multi-decadal modes of variability in the IGCM4 climate model Chaos, Coupling and Climate: The Oceanic Pathway to Atmospheric Blocking 16:30 COUPLING Daniel Skinner 16:45 Jamie Mathews 17:00 WEDNESDAY 19th June Alison Ming Temperature and ozone phases in the QBO 09:00 Mengyan Chen Amee Gollop Distinct Onset mechanisms of Two Subtypes of CP EI Nino and Their Changes in Future Warming Enhancing Andes Orography Alone Fails to Capture the Equatorial Pacific's Response to Elevated Carbon Dioxide Levels in a General Circulation Model 09:15 THE TROPICS 09:30 09:45 Ruth Geen Exploring the role of evaporation in atmospheric heat transport and seasonal low-latitude precipitation biases in CMIP6 10:00 10:15 BREAK 10:30 Did a strong polar vortex favour clustering of intense extratropical cyclones across the UK and Northern Europe during February 2022? Quantifying the impact of climate processes on trans-Atlantic flight times in observed IAGOS data 10.45 Ryan Williams 11:00 Corwin Wright THE Doug Smith Henrik Auestad Mitigation needed to avoid unprecedented North Atlantic winters On the relationship between latent heating and jet stream 11:15 11:30 **EXTRATROPICS** 11:45 Jeff Knight Influences on North Atlantic summer climate from the El Niño-Southern Oscillation Consistent decrease in North Atlantic eddy-driven jet variability under strong greenhouse gas forcing CLOSEING REMARKS AND WORKSHOP CLOSE 12:00 Amanda Maycock 12:15 12:30