

Atmospheric Science Conference 2019
Day 1 - Tuesday 2nd July

8.30	Registration and Refreshments			
9.00	Welcome and Opening Address			
9.10	Keynote Address - Re-examining the Perplexity of Cyclone Complexity			
	Dr Helen Dacre, Associate Professor of Meteorology, University of Reading			
9.40	An Overview of Atmospheric Pollution and Human Health in a Chinese Megacity Research Programme (APHH-Beijing)			
	Dr Zongbo Shi, University of Birmingham			
10.00	Causes of Climate Change over the Industrial Period – Understanding the past and predicting the future			
	Prof Gabriele Hegerl, University of Edinburgh			
10.20	First Results from the UKESM1 CMIP6 ScenarioMIP Ensemble of Future Projections			
	Dr Alistair Sellar, Met Office			
10.40	Tea and Coffee Break			
11.10	Parallel Sessions 1			
	A - Seasonal Predictions	B - Dynamics	C - Interactions	D - Earth System Modelling
Chaired by	Nick Dunstone	Ian Phillips	Clare Heaviside	
11.10	Development, Amplification and Decay of European Summer Weather Patterns Linked to Spring North Atlantic Sea Surface Temperatures	Structure, Lifecycle and Environmental Conditions of Tibetan Plateau Vortices	Managing Air for Green Inner Cities	UKESM1: An Assessment of the Pre-Industrial to Present-Day Anthropogenic Forcing and its Attribution to Different Forcing Agents
	Dr Albert Ossó, NCAS	Julia Curio, University of Reading & NCAS	Dr Paul Hayden, University of Surrey	Dr Fiona O'Connor, Met Office
11.30	The Utility of Seasonal Forecast Information for Drought Risk Assessments	ENSO Modulation of MJO Teleconnection to the North Atlantic & Europe and Implications for Subseasonal Predictability	On the Influence of Pre- and In-Seasonal Meteorological Conditions on Grass Pollen Interannual Variations in the UK	UKESM-Hybrid: Focusing Resolution Where it's Most Needed
	Dr Matthew Young, University of Reading & NCAS	Dr Robert W Lee, University of Reading & NCAS	Dr Alexander Kurganskiy, University of Worcester	Dr Marc Stringer, NCAS-CMS (University of Reading)
11.50	Seasonal Forecasts of the 20th Century	The Study of Topographic Changes of the Middle Levels of the Atmosphere and its Effect on the Heat Increase in the Middle East	Atmospheric Boundary Layer, Atmospheric Stagnation and Air Pollution Relationships Over the Atacama Desert, Chile	An Analysis of the UKESM1 CMIP6 Historical Ensemble
	Dr Antje Weisheimer, University of Oxford, Department of Physics & ECMWF	Prof Nader Parvin, Payame Noor University, Iran	Damián Oyarzun, Environmental Change Research Centre, Department of Geography, UCL	Dr Till Kuhlbrodt, University of Reading & NCAS
12.10	Volcanic Impacts on Large-Scale Climate Modes in a Multi-Model Ensemble	Equatorial Waves and High Impact Weather in South East Asia	An Extension of the Online Atmospheric Model WRF-Chem with Bioaerosols at the Species Level	Coupled Interactive Fire-Atmospheric Chemistry Model
	Dr Leon Hermanson, Met Office	Dr Sam Ferrett, University of Reading & NCAS	Prof Carsten Skjoth, University of Worcester	João Teixeira, Met Office & University of Exeter
12.30	Lunch			
13.30	Parallel Sessions 2			
Chaired by	A - Seasonal Predictions	B - Aerosols	C - Ozone & Climate	D - CMIP6
		Briony Turner	Till Kuhlbrodt	
13.30	The Impact of Strong El Nino and La Nina Events on the North Atlantic	The Influence of VOC Mixing on the Formation and Properties of Secondary Organic Aerosols	Modelling the Impacts of Ongoing East Asian CFC Emissions on Ozone Recovery	Interaction of Convective Organisation with Monsoon Precipitation, Atmosphere, Surface and Sea: The 2016 INCOMPASS field campaign in India
	Dr Steve Hardiman, Met Office Hadley Centre	Dr Rami Alfarra, The University of Manchester & NCAS	Dr James Keeble, University of Cambridge	Dr Andrew Turner, University of Reading & NCAS
13.50	Understanding the Signal-to-Noise Paradox with Nonlinear Dynamics	Observations Of Highly Oxygenated Molecules and New Particle Formation In Urban Atmospheres	Towards Improved Characterisation of the Impact of Chlorinated VSLs on Atmospheric Chemistry and Climate	Title Tbc
	Prof Tim Palmer, University of Oxford	James Brean, University of Birmingham	Dr Ewa Bednarz, Lancaster University	Speaker Tbc
14.10	Attribution of 2012 Extreme Climate Events: Does air-sea interaction matter?	Aerosol Sources in Delhi driven from Eddy-Covariance Flux Measurements and Concentration Analysis	Machine Learning Parameterizations for Ozone in Climate Sensitivity Simulations	Transport Resilience to Weather in Rio de Janeiro, Brazil
	Dr Buwen Dong, University of Reading & NCAS	Dr Eiko Nemitz, Centre for Ecology and Hydrology	Dr Peer Nowack, Imperial College London	Dr Emma Ferranti, University of Birmingham
14.30	Refreshments			
15.00	Poster Session			
16.00	Keynote Address - UK Emissions from Novel Sources			
	Prof Frank Kelly, King's College London			
16.30	Potential Benefits of Cool Roofs in Reducing Heat-Related Mortality During Heatwaves in a European City			
	Dr Helen L Macintyre, Public Health England & University of Birmingham			
16.50	Increased Shear in the North Atlantic Upper-Level Jet Stream over the Past Four Decades			
	Prof Paul D. Williams, University of Reading			
17.10	Simulating the Climate Response to Atmospheric Oxygen Variability in the Phanerozoic			
	Dr Alexander T. Archibald, University of Cambridge & NCAS/Met Office			
17.30	Conference closes day 1			
19.30	Conference Dinner			

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Day 2 - Wednesday 3rd July

8.30	Registration and Refreshments			
9.00	Welcome to Day 2			
	Keynote Address - Global Intensification in Observed Short-Duration Rainfall Extremes			
9.05	Prof Hayley Fowler, Professor of Climate Change Impacts, Newcastle University			
	Isoprene Measurements in an Oak-Dominated Forest during the 2018 Heatwave in the UK			
9.35	Dr Valerio Ferracci, Cranfield University			
	Measurement and Modelling of Physico-Chemical Properties and Atmospheric Behaviour of Automotive Diesel Particles			
9.55	Prof Roy Harrison, NCAS, University of Birmingham, UK and King Abdulaziz University, Saudi Arabia			
	Unsupervised Classification of Convective Organisation with Deep Learning			
10.15	Dr Leif Denby, University of Leeds			
10.35	Tea and Coffee Break			
11.05	Workshops			
11.10	Urban and Regional Air Quality	Climate Services	Machine Learning in Earth Sciences	
11.30				
11.50				
12.10				
12.35	Lunch			
13.10	Poster Session			
14.10	Parallel Sessions 3			
	A - Climate Variability	B - Atmospheric Chemistry	C - Africa	D - Convection & Storms
Chaired by	Richard Allan	Tomas Sherwen	Emily Black	
	Assessing External and Internal Sources of Atlantic Multidecadal Variability using Models, Proxy Data and Early Instrumental Indices	Measurements from the Manchester Time of Flight Chemical Ionisation Mass Spectrometer on the FAAM Bae 146 Research aircraft	Validation of TAMSAT-Derived Soil Moisture using NDVI	Radar Applications in Northern Scotland (RAINS)
14.10	Dr Christopher O'Reilly, University of Oxford	Dr Thomas J Bannan, University of Manchester	Dr Vicky Boulton, Department of Meteorology, University of Reading	Dr Ryan Neely III, University of Leeds & NCAS
	Quantifying the Effect of Asian Circulation Biases on the Climate Response to Aerosol Forcing	Analysis of tropospheric NO₂, HCHO, HONO and O₃ from three years of remote and urban MAX-DOAS measurements in Australasia	Regional Mechanisms for the "East African Paradox" Rainfall Decline and Recent Recovery	Covariance of Storm Hazards in the Atlantic Basin
14.30	Dr Laura Wilcox, University of Reading & NCAS	Robert Ryan, The University of Melbourne, Australia	Dr Caroline M. Wainwright, University of Reading	Dr Michael Angus, University of Birmingham
	Reconstruction of the Southern Annular Mode from Ships' Logbooks and other Historical Observations	Ammonia Trends and Future Research Directions for the UK and Globally	Quantifying Shifts in the Seasonality of Rainfall Across South Africa	High-Resolution Weather Research and Forecasting (WRF) Simulations of Ice Crystal Icing Events and the Risk to Aircraft
14.50	Dr Julie M Jones, University of Sheffield	Dr Christine Braban, Centre for Ecology & Hydrology	Sarah Roffe, University of Witwatersrand	Dr Daniel Bannister, SATAVIA
	Variability, Trends and Sensitivity to Aerosol Forcing of Historical Climate Extremes in a Novel Single-Model Ensemble	How Does the Formation Mechanism of Atmospheric Aerosol Particles Affect PM_{2.5} Toxicity in Urban Environments?	Impact of Long-Range Transport and Mixing of Biomass Burning Aerosols on Clouds and Radiation over South West Africa and the Gulf of Guinea during Summer Monsoon	Slope-driven convection: present understanding, open questions, and challenges for numerical weather prediction models.
15.10	Dr Andrea Dittus, University of Reading & NCAS	Steven Thomson, University of Birmingham	Prof Kehinde Ogunjobi, Federal University of Technology, Nigeria	Prof Dino Zardi - Atmospheric Physics Group, Department of Civil, Environmental and Mechanical Engineering, University of Trento
15.30	Refreshments			
16.00	Title Tbc			
	Speaker Tbc			
16.20	State of the UK Climate 2018			
	Michael Kendon, Met Office & National Climate Information Centre			
	Keynote Address - Climate Science Needs to Take Risk Assessment Much More Seriously			
16.40	Prof Rowan Sutton, University of Reading & NCAS			
17.10	Closing Remarks			
17.15	Close of conference			