15th International Meeting on Statistical Climatology (IMSC)

Detailed agenda (27 June 2024)

Monday 27 June 2024

Key: "R" indicates a remote presentation, and numbers indicate poster board assignments

09:00-10:45	**Registration & welcome coffee**		
10:45-11:00	**Opening**		
11:00-12:30	**Plenary Lectures** Location: *Amphitheatre* Co-chairs: **W. Huang, X. Wang**		
11:00-11:45	Modeling of spatial extremes in environmental data science: Time to move away from max-stable processes. **R. Huser**		
11:45-12:30	Improved Homogenisation of Observations Shows Steadier and Faster Historical Global Warming. **D. Chan**		
12:30-14:00	**Lunch break and Posters**		
14:00-15:40	**S06: Statistical and machine learning in climate science** Location: *Amphitheatre* Co-Chairs: **B. Balogh, E. Cariou**	**S01: Climate records** Location: *Prudhomme* Co-Chairs: **D. Chan, N. Lenssen**	**S09: Extreme value analysis methods and theory for climate applications** Location: *Der Megreditchian* Co-Chairs: **H. Moradi Rekabdarkolaee, G. Toulemonde**
14:00-14:15	Filling gaps in historical extremes using Artificial Intelligence **R. Dunn** **R**	Advancements in Changepoint Analysis and Its Impact on Climate Time Series **X. Shi** **R**	Linear regression for mutlivariate extremes with application to climate sciences **P. Naveau**
14:15-14:30	Mitigating bias in climate projections of extreme precipitation over West Africa using machine learning **I. Okeyode**	Has there been a recent acceleration in global warming? **C. Beaulieu**	A statistical test for changes in compound extreme events **S. Engelke**
14:30-14:45	Multi-Model Ensemble Projection of Global Precipitation and Temperature Changes Utilizing machine learning **T. Li**	Climatic warming in Shanghai over the recent 150 years based on homogenised temperature records **P. Liang**	Asymmetric dependence in hydrological extremes **C. Deidda**
14:45-14:48	**1** Multi-model Ensemble Prediction of Summer Precipitation in China Based on Machine Learning Algorithms **J. Yang**	**5** Development of Climatological Normal 1991-2020 for the Indonesia Region **K. Komalasari** **R**	**11** Large Scale Influence on Extreme Precipitation **F. Fauer**
14:48-14:51	**2** Short-term Prediction of Extreme Sea-Level at the Baltic Sea Coast by Random Forests **K. Bellinghausen**	**6** MapEval4OceanHeat (ME4OH): an objective assessment of mapping methods used to estimate ocean heat content change **M. McCarthy** (on behalf of M. Palmer)	**12** Validation study for modeling extreme precipitation using a Bayesian hierarchical framework **A. Rischmüller** **R**
14:51-14:54		**7** Spatial interpolation of seasonal precipitations in a complex topographical region - comparing several statistical models **V. Dura**	**13**
14:55-15:10	Unraveling individual and joint effects of large-scale climate modes and surface weather features on streamflow in the Murray River, Australia **B. Bates**	Monthly Mean Surface Wind Speed Data Homogenization and Trend Characterization **X. Wang**	Conditional Decomposition Approach for Modeling Multivariate Extreme Events **W. Huang**

Monday 24 June 2024 continued

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15:10-15:25	Stochastic emulation of weather radar images time-series using generative AI **F. Guéguéniat**	A noisy-input generalised additive model for relative sea-level change along the Atlantic coast of North America **M. Upton**	Modeling moderate and extreme urban rainfall at high spatio-temporal resolution **C. Serre-Combe**
15:25-15:40	Effect of Climate Change on Temporal and Spatial Variability of Vulnerability and Flood Hazard **H. Moradi Rekabdarkolaee**	Uncertainty characterization of Mean Sea Level measurements from satellite radar altimetry **P. Prandi**	Integration of physical bound constraints to alleviate shortcomings of statistical models for extreme temperatures **R. Noyelle**
15:40-16:20	**Coffee break and Posters**		
16:20-18:00	**S06: Statistical and machine learning in climate science** Location: *Amphitheatre* Co-Chairs: **B. Balogh, E. Cariou**	**S01: Climate records** Location: *Prudhomme* Co-Chairs: **N. Lenssen, X. Wang**	**S09: Extreme value analysis methods and theory for climate applications** Location: *Der Megreditchian* Co-Chairs: **W. Huang, G. Toulemonde**
16:20-16:35	Higher-order internal modes of variability imprinted in year-to-year California streamflow changes **S. Duan**	Locally Stationary Mapping and Uncertainty Quantification of Ocean Heat Content Based on Argo Profiles During 2004-2022 **M. Kuusela**	Flood risk modelling using geometric extreme value theory **L. De Monte**
16:35-16:50	Detection and Characterization of Future Climate Extremes with Deep Learning **A. Durif**	Propagation of uncertainties from space geodetic measurements to the global ocean heat content and the earth energy imbalance **M. Ablain**	Robust extreme value analysis by semiparametric modelling of the entire distribution range **F. Kwasniok** **R**
16:50-17:05	Random Forest Based Tropical Cyclone Detection **P. Vaittinada Ayar**	A non-stationary geostatistical model for the stochastic interpolation of daily rain gauge observations in mountain areas **L. Benoit**	An appraisal of the value of simulated weather data for quantifying coastal flood hazard in the Netherlands **C. De Valk**
17:05-17:08	**3** Improving probabilistic forecasts of extreme winds by training post-processing models with weighted scoring rules **J. Wessel**	**8** Comparison of changepoint methods for homogenization of precipitation **H. Alharthi**	**14** Optimizing the process of ensemble boosting using tailored iterative algorithms **L. Bloin-Wibe**
17:08-17:11	**4** Incorporating physical knowledge to emulate the parameterizations of the IPSL model **S. Crossouard**	**9** Atmospheric Features via Topological Data Analysis **L. Seymour**	**15** The social psychological attribution of event attribution **D. Stone**
17:11-17:14		**10** Calculation of Irelands LTA grids 1961-2020 **B. Coonan**	
17:15-17:30	Enhancing local climate study through RCM-Emulator: Downscaling a large ensemble of GCM simulations for extreme event analysis **A. Doury**	On the automatic application of a standard and enhanced quality control process for daily precipitation since 1960s in South America **A. Huerta**	Simulation of Extreme Events in Climate Models with Rare Event Algorithms **F. Ragone**
17:30-17:45	Using AI to estimate the dynamical contribution to European temperature variability. **E. Cariou**	A new statistical method for the homogenization of GNSS Integrated Water Vapour time series **N. Nguyen**	What are the hottest events between now and the end of the century? **Y Robin**
17:45-18:00		Intercomparison of climatologies and trends in ocean precipitation across multiple datasets **M. Bador**	

18:00-20:00	**Icebreaker**

Tuesday 25 June 2024

Key: "R" indicates a remote presentation, and numbers indicate poster board assignments

09:00-10:30	**Plenary Lectures** Location: *Amphitheatre* Co-Chairs: **L. Bravo de Guenni, T. DelSole**						
09:00-09:45	Multi-century disaster gaps followed by strong clusters of extreme precipitation – understanding the irregular occurrence of local heavy rainfall **E. Fischer**						
09:45-10:30	Changepoint estimation in climatology **R. Killick**						
10:30-11:00	**Coffee break and Posters**						
11:00-12:30	**Plenary Lectures** Location: *Amphitheatre* Co-chairs: **B. Balogh, E. Fischer**						
11:00-11:45	Interpretable stochastic weather generator, application to a crop model, and climate change analysis **D. Metivier**						
11:45-12:30	Predicting the counterfactual: challenges and opportunities of forecast-based attribution **N. Leach**						
12:30-14:00	**Lunch Break and Posters**						
14:00-15:40	**S08: Attribution and analysis of single weather events** Location: *Amphitheatre* Co-Chairs: **E. Fischer, M. Kirchmeier-Young**			**S06: Statistical and machine learning in climate science** Location: *Prudhomme* Co-Chairs: **B. Balogh, E. Cariou**		**S05: Statistics for climate models, ensemble design, uncertainty quantification, model tuning** Location: *Der Megreditchian* Co-Chairs: **L. Terray, T. DelSole, J. Salter**	
14:00-14:15	How extreme were daily global temperatures in 2023? **J. Cattiaux**			From climate to weather reconstruction with inexpensive neural networks **M. Wegmann**		Tuning Earth System Models Without Integrating to Statistical Equilibrium **T. DelSole**	
14:15-14:30	Synthesis of multi-model attribution results - Formally combining different lines of evidence in extreme event attribution **F. Otto**			Identifying probabilistic weather regimes targeted to a local-scale impact variable **F. Spuler**		Calibration with unknown discrepancy **J. Salter**	
14:30-14:45	Relative contributions of anthropogenic forcing and internal variability in southeast Australia's multi-year (2017-2019) drought and future prospects **S. Rauniyar**			Global-scale evaluation of classifications methods for atmospheric circulation **J. Fernandez-Granja**		Uncertainty characterisation for time series from ensembles of climate projections **R. Chandler**	
14:45-14:48	**1**	Attribution of extreme weather events over Germany **J. Schröter**	R	**8**	*Separating Internal Variability from Anthropogenic Forcing Using Artificial Intelligence* ***D. Techer***	**12**	Characterising spatial structure in climate model ensembles **R. Chandler**
14:48-14:51	**2**	Recent developments from World Weather Attribution **C. Barnes**					
14:51-14:54	**3**	On the storyline and likelihood for spatially compound flood-heat-flood events based on ensemble boosting **Y. Guo**					

Tuesday 25 June 2024 continued

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14:55-15:10	A quasi-operational event attribution system for hot extremes in Canada **N. Gillett**			Analysis of extreme-temperature events over the Southern Africa region: Synoptic systems of heat waves and extreme hot days using Self-Organizing Maps **P. Jubase**			Using rare event algorithms to understand the statistics and dynamics of extreme events **C. Le Priol**
15:10-15:25	Translating historical extreme weather events into a warmer world **E. Hawkins**			Identification of hydrometeorological drivers of forest damage in Europe **P. Rivoire**			Huge Ensembles of Weather Extremes using the Fourier Forecasting Neural Network **W. Collins**
15:25-15:40	**4**	Towards compound extreme event attribution: hot and dry events in Belgium **C. Deidda** (15:25)		Generative Modelling for Multivariate Downscaling via Proper Scoring Rules **M. Schillinger**			Simulating extreme weather events with high-resolution large climate model ensembles and neural networks **P. Watson**
	5	Impact of anthropogenic climate change on the frequency and intensity of extreme events in France in the context of conditional attribution **C. Nadelsi** (15:28)					
	6	Perils, pitfalls, and proposals for extreme wind attribution based on the example of the 2022 Hurricane Fiona **N. Gillett** (15:31)					
	7						
15:40-16:20	**Coffee break and Posters**						
16:20-18:00	**S08: Attribution and analysis of single weather events** Location: *Amphitheatre* Co-Chairs: **E. Fischer, M. Kirchmeier-Young**			**S01: Climate records** Location: *Prudhomme* Co-Chairs: **D. Chan, N. Lenssen**			**S05: Statistics for climate models, ensemble design, uncertainty quantification, model tuning** Location: *Der Megreditchian* Co-Chairs: **J. Salter, L.Terray**
16:20-16:35	A simple hybrid method to translate past weather events into the future climate **J. Boé**			Sector specific extension to an extremes indices dataset and comparisons to reanalyses **R. Dunn**	R		Constraining Regional Precipitation Projections by Benchmarking Model Performance **M. Bador**
16:35-16:50	The Effect of a Short Observational Record on the Statistics of Temperature Extremes **O. Pasche**			Satellite derived trends and variability of CO2 concentrations in the Middle East during 2014–2023 **R. Fonseca**			Filling the GCM/RCM matrix **O. Christensen**
16:50-17:05	Probability estimation for long return period hot extremes using a large ensemble of model simulations **Y. Liang**	R		Reassessing the highest temperature recorded in Ireland at Kilkenny Castle on 26 June 1887 **M. Curley**			Beyond Multi-Model Means: Leveraging Local Model Strengths for Superior Climate Projections **G. Mariethoz**
17:05-17:08				**9**	A NASA GISTEMPv4 Observational Uncertainty Ensemble **N. Lenssen**		
17:08-17:11				**10**	Extending the Observational Record of Compound Drought and Heatwave Events for Future Risk Management **K. Taylor**		
17:11-17:14				**11**	A detailed stationarity analysis and trend modelling of French daily precipitations **E. Paquet**		

Tuesday 25 June 2024 continued

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17:15-17:30	Causal Attribution of Arctic Extreme Fire Weather Events to Anthropogenic Forcings **L. Fiedler**	An apparent multi-decadal global ocean cold anomaly in the early twentieth century temperature record **S. Sippel**		Constrained CMIP6 future climate projections over the Euro-Mediterranean region based on a circulation patterns approach **M. Olmo**
17:30-17:45	Attribution of area burned and other fire season characteristics: an example from the 2023 Canadian wildfire season **M. Kirchmeier-Young**	Sensitivity of Percentile-Based Extreme Temperature Indices: Implications for Climate Change Monitoring in an Era of Accelerated Warming **Y. Yosef**	R	Recent and Projected Changes in Climate Patterns in an extended Middle East and North Africa Region **R. Fonseca**
17:45-18:00		Assessing Seasonal Rainfall Trend in Federal Capital Territory (FCT) Abuja Nigeria **A. Anokwu**		

Wednesday 26 June 2024

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09:00-10:30	**Plenary Lectures** Location: *Amphitheatre* Co-Chairs: **D. Specq, Q. Sun**			
09:00-09:45	Strong El Niño events lead to robust multi-year ENSO predictability **N. Lessen**			
09:45-10:30	Can past analogue events inform on climate risk **G. Hegerl**			
10:30-11:00	**Coffee break and Posters**			
11:00-12:30	**Plenary Lectures** Location: *Amphitheatre* Co-Chairs: **D. Stone, J. Zscheischler**			
11:00-11:45	Thirty years of optimal fingerprinting: What has it achieved? **P. Stott**			
11:45-12:30	Using spatial extreme-value theory with machine learning to model and understand spatially compounding extremes **J. Koh**			
12:30-14:00	**Lunch Break and Posters**			
14:00-14:55	**S08: Attribution and analysis of single weather events** Location: *Amphitheatre* Co-Chairs: **E. Fischer, M. Kirchmeier-Young**	**S04: Weather/climate forecasting, predictability and forecast evaluation** Location: *Prudhomme* Co-Chairs: **C. Le Coz, D. Specq**		**S07: Long-term detection and attribution and emergent constraints on future climate projections** Location: *Der Megreditchian* Co-Chairs: **C. Li, D. Stone**
14:00-14:15	Exploring unprecedented hot-dry events in Aotearoa New Zealand **L. Harrington**	Spatial Trends of Convective Available Potential Energy (CAPE) over Bangladesh and its eight regions for 40 years (1982- 2021) **S. Kader**		Granger causal inference for climate change attribution **M. Wehner**
14:15-14:30	Human influences on spatially compounding flooding and heatwave events and future increasing risks **C. Qian**	*The Influence of Solar Activity on Snow Cover over the Qinghai–Tibet Plateau and Its Mechanism Analysis* ***Y. Song***		Reducing the uncertainty of projected changes in extreme precipitation **F. Zwiers**
14:30-14:45		Advanced pattern techniques in weather and climate science **F. Kwasniok**	R	A Statistical Review on the Optimal Fingerprinting Approach in Climate Change Studies **S. Chen**

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14:45-15:40	**S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events** Location: *Amphitheatre* Co-Chairs: **Q. Sun, J. Zscheischler**	**S04: Weather/climate forecasting, predictability and forecast evaluation** Location: *Prudhomme* Co-Chairs: **C. Le Coz, D. Specq**	**S07: Long-term detection and attribution and emergent constraints on future climate projections** Location: *Der Megreditchian* Co-Chairs: **C. Li, D. Stone**
14:45-14:48	**1** Assessment of recent trends in climate extremes over Kano State, Nigeria using statistical techniques **H. Rasaq**	**9** Statistical downscaling of long-term summer temperature forecasts for Czechia **S. Kliegrova**	**11** Detection and attribution, optimal fingerprinting, atmospheric climate models, and Aoteaora New Zealand **D. Stone**
14:48-14:51	**2** Projected Changes in Hot, Dry, and Compound Hot-Dry Extremes Over Global Land Regions **P. De Luca**	**8** Operational seasonal prediction over Europe using multiple scenarios from a multi-model ensemble forecast **D. Specq**	**13** Progress in the detection and attribution of regional climate change **D. Stone**
14:51-14.54	**3** Frameworks for considering extreme weather risks in future climates given major uncertainties **P. Watson**	**10** Dynamic-statistical downscaling method for annual precipitation prediction in Yangtze River Basin and its application **Y. Yang**	**14** Impacts of natural and anthropogenic forcings on historical and future changes in global-land surface air temperature in CMIP6–DAMIP simulations **T. Zhao**
14:55-15:10	Non-stationarity of the multi-temporal severity of meteorological drought in France **J. Blanchet**	The dynamics of persistent hot spells in European summers **D. Pappert**	The Detection and Attribution Model Intercomparison Project: CMIP6 highlights and plans for CMIP7 **N. Gillett**
15:10-15:25	Assessing Precipitation Intensity-Duration-Frequency Curves under Climate Change in Local Scale Catchments **L. Bravo de Guenni**	El Niño prediction based on online change-point detection in high-dimensional correlation structure **Z. Li**	An emergent constraint approach for making climate projections of Antarctic sea ice area decay **D. Stephenson**
15:25-15:40		Seasonal Forecasts of Winter Temperature Improved by Higher-Order Modes of Mean Sea Level Pressure Variability in the North Atlantic Sector **C. Dalelane** R	Detection and attribution of climate change using paleoclimate observations directly **M. Evans**
15:40-16:20	**Coffee break and Posters**		
16:20-18:00	**S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events** Location: *Amphitheatre* Co-Chairs: **Q. Sun, J. Zscheischler**	**S04: Weather/climate forecasting, predictability and forecast evaluation** Location: *Prudhomme* Co-Chairs: **C. Le Coz, D. Specq**	**S07: Long-term detection and attribution and emergent constraints on future climate projections** Location: *Der Megreditchian* Co-Chairs: **C. Li, D. Stone**
16:20-16:35	Heat waves trends and patterns in West Africa: definitions and drivers **D. Aderotoye**	Probabilistic forecasting of cloud base height and visibility using Quantile Regression Forests, based on NWP and observation features **M. Schmeits**	Moving from empirical emergent constraints to more robust Bayesian statistics: a case study on land surface drying **H. Douville**
16:35-16:50	Constraining decadal variability regionally improves near-term projections of hot, cold and dry extremes **P. De Luca**	Improving MOS Random Forests for Post-processing Extreme Wind Gust Forecasts **B. François**	Time of Emergence Analysis in Climate Science **A. Borowiak**
16:50-17:05	Unprecedented regional trends in extreme weather until 2040, even under strong mitigation **C. Iles**	Improving sub-seasonal wind-speed forecasts in Europe with a non-linear model **G. Tian**	Relating observational constraints and data assimilation **A. Ribes**

Wednesday 26 June 2024 continued

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17:05-17:08	**4**	Trends in severity of heat waves: an added value of three-dimensional (3D) insight **O. Lhotka**				
17:08-17:11	**5**	Detection and characterisation of the compound drought and heatwave event of spring-summer 2022 in the Adige River catchment (north-eastern Italy). **M. Lemus-Canovas**				
17:11-17:14	**6**	Cluster of storms and insurance impact **L. Hasbini**				
17:15-17:30	Regional climate change for East Asia and Europe based on homogenized daily observations **Z. Li**		Constraining near to mid-term climate projections by combining observations with decadal predictions **R. Bonnet**		Accounting for Pacific climate variability increases projected global warming **Y. Liang**	R
17:30-17:45	Joint assessment of trends in the bulk and extreme precipitation using non-stationary extended generalized Pareto distribution **A. Haruna**		Optimal transport for the multi-model combination of sub-seasonal ensemble forecasts **C. Le Coz**		Reconciling the "hot model" problem in climate projections **C. Li**	
17:45-18:00			Human against the machine - how does a modern multi-model ensemble seasonal forecast compare to the traditional SARCOF consensus outlook? **P. Wolski**			

19:30-23:00	**Conference Dinner**

Thursday 27 June 2024

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09:00-10:30	**Plenary Lectures** Location: *Amphitheatre* Co-Chairs: **D. Allard, D. Stone**						
09:00-09:45	Bayesian nonparametric emulation and calibration of climate models **M. Katzfuss**						
09:45-10:30	Unraveling the Impact of Greenhouse Gases and Aerosols on Changes in Extreme Rainfall **C. Bonfils**						
10:30-11:00	**Coffee break and Posters**						
11:00-12:40	**S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events** Location: *Amphitheatre* Co-Chairs: **Q. Sun, J. Zscheischler**		**S04: Weather/climate forecasting, predictability and forecast evaluation** Location: *Prudhomme* Chair: **C. Le Coz, D. Specq**		**S07: Long-term detection and attribution and emergent constraints on future climate projection** Location: *Der Megreditchian* Co-Chairs: **C. Li, D. Stone**	
11:00-11:15	A multi-variate measure of climate change emergence **A. King**		Verification of full distributions on decadal timescales **A. Düsterhus**		Detection and attribution of urbanization forcing on urban and regional hot extremes **Y. Chen**	
11:15-11:30	Increasing frequency, intensity, duration and areal extent of extreme precipitation events in Japan since 1900 **C.-T. Chen**		Extracting latent variables from forecast ensembles and advancements in similarity metric utilizing optimal transport **S. Nishizawa**		Anthropogenic influence on temperature change in China over the period 1901-2018 **H. Yin**	
11:30-11:45	Understanding correlation of wind and precipitation annual aggregate severity of European cyclones **T. Jones**		Forecast quality assessment of multi-annual predictions of mean and extreme temperature and precipitation: multi-model evaluation and impact of model initialisation **C. Delgado-Torres**		Detecting human influence on precipitation in Canada **X. Zhang**	
11:45-11:48	**1**	A storyline of the intense Mediterranean heavy precipitation event and storm Alex occurring in 2022 instead of 2020, with warmer sea surface temperatures **M. Bador**	**8**	Verification of extreme wet and dry cases in Brazil predicted by ECMWF S2S model **I. Cavalcanti**	**10**	Projected Global Temperature Changes after Net Zero are Small but Significant **A. Borowiak**
11:48-11:51	**2**	Record-breaking and record-shattering extremes in a warming climate **E. Fischer**	**9**	Subseasonal and Seasonal drivers of European winter weather **M. Kretschmer**	**11**	Attribution of long-term trends in the Western Mediterranean: exploring regional aspects **D. Campos Diaz**
11:51-11:54					**12**	Contrast of emergent constraint on western North Pacific subtropical high between CMIP5 and CMIP6 **X. Chen**
11:55-12:10	On the atmospheric background for the occurrence of three heat wave types in East China **W. Xie**		A new method for correcting model biases in decadal forecasts **E. Sanchez Gomez**		Observational Uncertainty is Necessary for Assessing Time-of-Emergence **N. Lenssen**	
12:10-12:25	Time and period of emergence of compound events in France **J. Schmutz**		Evaluation of high resolution regional model (COSMO) used in marine weather forecasting over the Nigerian coast- Gulf of Guinea **M. Sholademi**		Observationally constrained attribution and projection of warming in Canada **T. Li**	
12:25-12:40	Statistical modelling of extreme rainfall over Aotearoa New Zealand **D. Stone**		Deep-Learning Weather Prediction: Case Studies and Model Deficiencies **J. Wider**		Global emergence of unprecedented lifetime exposure to climate extremes **W. Thiery**	

Thursday 27 June 2024 continued

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12:40-14:00	**Lunch Break and Posters**				
14:00-15:40	**S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events** Location: *Amphitheatre* Co-Chairs: **Q. Sun, J. Zscheischler**		**IDAG** Location: *Prudhomme* Co-Chairs: **M. Kirchmeier-Young, D. Stone**	**S11: From global change to regional impacts, downscaling and bias correction** Location: *Der Megreditchian* Co-Chairs: **B. François, S. Thao**	
14:00-14:15	Assessing irreversible increase of hot/dry and hot/wet compound extreme events in a post-net-zero climate **M.-G. Seong**			Bias adjustment of climate models: common pitfalls and a new Python package to address these through model comparison and evaluation **J Wessel**	
14:15-14:30	Future shifts in timing of regional extreme precipitation **D. Zhu**			Distribution-based pooling for combination and multi-model bias correction of climate simulations **M. Vrac**	
14:30-14:45	Compound climate events: can climate simulations be improved by bias correction? **G. Jacquemin**			Nearest-Neighbor Gaussian Process to Downscale Solar Forecasting at the Grid-Edge for Increased Situational Awareness **R. Moradi**	
14:45-14:48	**3**	Future risk of hyperthermia in French Guiana: assessing extreme values of Heat Index with multi-model analysis **L. Bald**		**13**	Semi-parametric, multisite precipitation weather generation using GAMLSS **J. Wessel**
14:48-14:51	**4**	Causes of 2022 Atypical Meiyu in Lower Yangtze River Basin: Subseasonal Perspective and Its Predictions **Z.-Q. Zhang**		**14**	Ensemble bias correction of climate simulations: preserving internal variability **P. Vaittinada Ayar**
14:51-14:54				**15**	Mapping local climate change: a methodology with regional warming levels as key intermediary **L. Corre**
14:55-15:10	Designing life levels of Extreme Temperature by 2100 **O. Barbaux**			Intercomparison of Statistical and Dynamical Downscaling for Reproducing Compound Hot-Dry Events **M. Legasa**	
15:10-15:25	Extreme Temperature Indices Based on Satellite Land Surface Temperature Data **J. Blannin**			Assessment of the performance of convolutional neural network based RCM-emulator in representing daily near-surface temperature over the complex terrain of Subtropical Chile **K. Goubanova**	R
15:25-15:40	Increasing overlap of USA - Australia fire seasons poses challenges for firefighting cooperation **J. Zscheischler**			Diving into Deep Learning techniques for multi-site fire danger prediction through a pseudo-reality study **O. Mirones**	

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15:40-16:20	**Coffee break and Posters**			
16:20-18:00	**S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events** *Location: Amphitheatre* Co-Chairs: **Q. Sun, J. Zscheischler**		**D&A Course** Location: *Prudhomme* Instructors: **Y. Li, J. Yan**	**S03: Space-time statistical methods for modelling and analyzing climate variability** *Location: Der Megreditchian* Chair: **W. Huang**
16:20-16:35	Scaling of climate extremes after net zero CO2 emissions **L. Cassidy**			Surface time series models for large spatio-temporal datasets **I. Martinez Hernandez**
16:35-16:50	Systematic overview of circulation contributions to observed summer heat trends **P. Pfleiderer**			Empirical Orthogonal Functions and their latest developments **B. Alglave**
16:50-17:05	Which regions are at risk for breaking precipitation records in the (near) future? **I. de Vries**			Exploring Climate Extremes: Mode-Based Pattern Recognition with Koopman Operator Theory **M. Avakumović**
17:05-17:08	**5**	Emergence of climate change signals in a CMIP6 multi-model ensemble of extreme indices **N. Schuhen**		**16** Basis for Change: Approximate Stationary Models for Large Spatial Data **A. Sikorski**
17:08-17:11	**6**	Attribution of extremes in the terrestrial carbon cycle **I. Dunkl**		**17** Down-scaling of open-boundary vector fields using Gaussian Markov random fields **M. Gillan**
17:11-17:14	**7**	Analyzing 23 years of warm-season derechos in France: a climatology and investigation of synoptic and environmental changes **L. Fery**		
17:15-17:30	Projections of Diverse ENSO Teleconnections with Extremes in CMIP6 models **R. Lieber**			A Bayesian spatio-temporal regression model to derive gridded monthly SPI-1 and SPI-3 maps **G. Fioravanti**
17:30-17:45	Dependence of daily precipitation extremes on the temperature in China from observation to projections **H. Cui**			Modeling CO2 concentration in the atmosphere using spatio-temporal random fields on meshed surfaces defined from advection-diffusion SPDEs **L. Clarotto**
17:45-18:00				Comparison of Spatial Models for Wind Resource in Ireland **E. Organ**

18:30-21:00	**Guided Tour of Toulouse**

Friday 28 June 2024

Key: "R" indicates a remote presentation, and numbers indicate poster board assignments

09:00-10:30	**Plenary Lectures** Location: *Amphitheatre* Co-Chairs: **T. Soulivanh, W. Thiery**						
09:00-09:45	Deep Learning for Statistical Downscaling: Recent Advances and Perspectives **J. González-Abad**						
09:45-10:30	Developments and challenges in attributing climate change impacts **S. Undorf**						
10:30-11:00	**Coffee break and Posters**						
11:00-11:55	**S12: Impact attribution: from source to suffering** *Location: Amphitheatre* Co-Chairs: **G. Hegerl, W. Thiery**		**S03: Space-time statistical methods for modelling and analyzing climate variability** Location: *Prudhomme* Co-Chairs: **L. Bel, L. Clarotto**		**S11: From global change to regional impacts, downscaling and bias correction** Location: *Der Megreditchian* Co-Chairs: **B. François, S. Thao**		
11:00-11:15	Linking rising temperatures and mental health risks in India- Implications for attribution of climate-related impacts **M. Zachariah**		Classifications of atmospheric circulation patterns: a tool for explaining asymmetry in day-to-day temperature differences **R. Huth**		Selection of representative climate simulations by minimizing bias in average monthly temperature and precipitation: near-future climate change in Odesa, Ukraine **V. Khokhlov**		
11:15-11:30	Forecast-based attribution of the mortality impact of the Pacific Northwest heatwave **E. Lo**		Evaluation of global teleconnections in CMIP6 climate projections using complex networks **C. Dalelane**	R	Evolution of high-temperature extremes over the Euro-Mediterranean region and its impact on aircraft takeoff performance **V. Gallardo**		
11:30-11:45	Direct and lagged climate change effects intensified the widespread 2022 European drought **E. Bevacqua**		Temperature anomalies through NASA's Giovanni platform and their comparison with the temperatures recorded at the main meteorological stations in Nicaragua, period 2016-2020 **R. Silva Soza**		Detection of Anthropogenic Impacts on Snowpack Variability in Western US. **S. Duan**		
11:45-11:48	**1**	The impact of future sea-ice loss on temperature extremes and human mortality in Canada **E. Ball**	**3**	Trends in surface air temperature and its short-term variability: How are they related? An analysis based on PCA **R. Huth**	**8**	Future Scenarios Projections of Temperature, Precipitation and Extreme Climate Indexes over Guangxi **X. Zhou**	
11:48-11:51	**2**	ECMWF ensemble model specific humidity skill verification in the region of Vietnam **I. Perez**	**4**	Unveiling seasonal synoptic-scale links: A global evaluation of atmospheric circulation and climate connections **J. Stryhal**	**S08: Attribution and analysis of single events**		
					9	An attribution atlas for Aotearoa New Zealand **D. Stone**	
11:51-11:54					**10**	Comparison of Results from Different Event Attribution Techniques for an Attribution Service **S. Rauniyar**	
11:55-12:40	**S12: Impact attribution: from source to suffering** *Location: Amphitheatre* Co-Chairs: **G. Hegerl, W. Thiery**		**S03: Space-time statistical methods for modelling and analyzing climate variability** Location: *Prudhomme* Co-Chairs: **L. Bel, L. Clarotto**		**S08: Attribution and analysis of single weather events** Location: *Der Megreditchian* Co-Chairs: **C. Iles, M. Kirchmeier-Young**		
11:55-12:10	Attributing damage costs to climate change in New Zealand floods **S. Dean**		Bridging the divide between physical and statistical reasoning in climate variability and change **T. Shepherd**		Global warming contribution to the long-lived super typhoon Hinnamnor: Role of warm surface water over the East China Sea **Y.-H. Kim**		

Friday 28 June 2024 continued

Key: "R" indicates a remote presentation, and numbers indicate poster board assignments

12:10-12:25	Storylines for heat-mortality extremes **E. Fischer**	Wet season onset and termination in south-western Cape, South Africa **N. Ndebele** R	Contribution of External Forcing and Internal Variability to Recent Extreme Rainfall Trends in the Horn of Africa **J. Kitmutai**
12:25-12:40		Multivariate spatio-temporal stochastic weather generator **S. Obakrim**	Forensic attribution of the extreme rainfall in Pakistan in 2022 to anthropogenic climate change **B. Clarke**
12:40-14:00	**Lunch Break and Posters**		
14:00-15:40	**S12: Impact attribution: from source to suffering** *Location: Amphitheatre* Co-Chairs: **G. Hegerl, W. Thiery**	**S03: Space-time statistical methods for modelling and analyzing climate variability** Location: *Prudhomme* Co-Chairs: **D. Allard, L. Benoit**	**S08: Attribution and analysis of single weather events** Location: *Der Megreditchian* Co-Chairs: **E. Fischer, M. Kirchmeier-Young**
14:00-14:15	Quantifying Individual Contributions to eXtremes (QuICX) **F. Lott**	HWGEN: An Hourly Wind stochastic GENerator **S.Yin** R	Anthropogenic Influence on 2022 Extreme January–February Precipitation in Southern China **Y. Hu**
14:15-14:30	Impact Attribution - how did climate change affect wheat yields in northern Kazakhstan? **P. Romanovska** R	Spatio-temporal weather generator for the temperature over France **C. Cognot**	Extreme event attribution of the unprecedented heat event of August 2023 in Barcelona (Spain). Observed and projected intensity and exposure under global warming **M. Lemus-Canovas**
14:30-14:45	Acceleration of local warming damped in urban areas of the Global South **A. Sengupta**	On the archetypal `flavours' and indices of ENSO **D. Monselesan**	A large ensemble illustration of how record-shattering heat records can endure **J. Risbey**
14:45-14:48		**5** Quantifying ENSO teleconnections in a variable climate **A. King**	**11** Multiple attribution analysis for heat wave events in Argentina in the summer of 2022/23 using the analogue technique **S. Collazo** R
14:48-14:51		**6** Low-frequency climatic variability and trends in Central Argentina **D. Panza** R	**12** Disentangling the Contribution of Greenhouse Gases and Aerosols to Estimates of Regional Heatwave Return Periods **F. Kraulich**
14:51-14:54		**7** Analyzing Climate Trends in Southern Africa: A Comparative Study of Observed and Modeled Data on Regional Warming **I. Pinto**	
14:55-15:10	Projected shifts and dynamics in blue and green water resources availability **S. Heselschwerdt**	Regional and seasonal diversity of ENSO-precipitation teleconnections and their asymmetry in CMIP6 models **A. Sengupta**	The 2021 heatwave was less rare in Western Canada than previously thought **E. Malinina** R
15:10-15:25	Tipping points in hydrology: an inquiry into Sahelian watersheds regime shifts with a dynamical model and past climate simulations **E. Le Roux**	Pacific climate variability and its regional impacts in warmer, stabilised climates **A. Dittus**	The unprecedented spatial extent and intensity of the 2021 summer extreme heatwave event over the Western North American regions **C.-T. Chen**
15:25-15:40	Children disproportionally exposed to attributable heatwaves at low-latitude low-income countries **R. Pietroiusti**	Toward improved ocean heat content mapping and uncertainty quantification by modeling vertical spatio-temporal dependence **T. Sukianto**	Simulating the Western North America heatwave of 2021 with analogue importance sampling **P. Yiou**

Friday 28 June 2024 continued

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15:40-16:20	**Coffee Break and Posters**		
16:20-18:00	**S12: Impact attribution: from source to suffering** *Location: Amphitheatre* Co-Chairs: **G. Hegerl, W. Thiery**	**S03: Space-time statistical methods for modelling and analyzing climate variability** Location: *Prudhomme* Chair: **F. Zwiers**	**S08: Attribution and analysis of single weather events** *Location: Der Megreditchian* Co-Chairs: **E. Fischer, M. Kirchmeier-Young**
16:20-16:35	Aridification and its impacts on terrestrial hydrology and ecosystems over a comprehensive transition zone in China **Z. Li**	Statistical dependency among persistent events: Jet stream configurations and their impact on the formation of mid-latitude heatwaves **R. Donner**	Anthropogenic Contribution to the Unprecedented 2022 Mid-Summer Extreme High-Temperature Event in Southern China **X. Guan**
16:35-16:50	Navigating Climate Change Health Impacts: Unveiling the Role of Behavioural Communication **N. Okoko** R	Characterization of hot-dry spatially compound events using probabilistic networks **C. Graafland** R	
16:50-17:05	Assessment of the vulnerability of Senegalese farming households to climate change: integrated assessment approach and mapping of indicators using geographic information systems (GIS). **M. Ndimblane**	On the statistical distribution of temperature and the classification of extreme events considering season and climate change – an application in Switzerland **S. Scherrer**	
17:05-17:08			
17:08-17:11			
17:11-17:14			
17:15-17:30		Variation of dry spell over Makurdi, Benue State, Nigeria **P. Iheme**	
17:30-17:45			
17:45-18:00			