

15th International Meeting on Statistical Climatology (IMSC)

Preliminary detailed agenda (22 April 2024)

Monday 24 June 2024			
09:00-10:45	Registration & welcome coffee		
10:45-11:00	Opening		
11:00-12:30	S01: Climate Records (Chair: N. Lenssen, X. Wang) S09: Extreme value analysis methods and theory for climate applications (Chair: W. Huang, G. Toulemonde) Location: <i>Amphitheatre</i>		
11:00-11:45	(S09) Modeling of spatial extremes in environmental data science: Time to move away from max-stable processes. R. Huser		
11:45-12:30	(S01) 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: <i>Amphitheatre</i> Chair: B. Balogh, S.-K. Min	S01: Climate records Location: <i>Prudhomme</i> Chair: N. Lenssen, X. Wang	S09: Extreme value analysis methods and theory for climate applications Location: <i>Der Megreditchian</i> Chair: W. Huang, G. Toulemonde
14:00-14:15	Filling gaps in historical extremes using Artificial Intelligence R. Dunn	Advancements in Changepoint Analysis and Its Impact on Climate Time Series X. Shi	Linear regression for multivariate 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 M. 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	Multi-model Ensemble Prediction of Summer Precipitation in China Based on Machine Learning Algorithms J. Yang	Development of Climatological Normal 1991-2020 for the Indonesia Region Y. Fajariana	Large Scale Influence on Extreme Precipitation F. Fauver
14:48-14:51	Short-term Prediction of Extreme Sea-Level at the Baltic Sea Coast by Random Forests B. Hünicke	MapEval4OceanHeat (ME4OH): an objective assessment of mapping methods used to estimate ocean heat content change M. Palmer	Validation study for modeling extreme precipitation using a Bayesian hierarchical framework A. Rischmüller
14:51-14:54		Spatial interpolation of seasonal precipitations in a complex topographical region - comparing several statistical models V. Dura	Attribution of global fire weather extremes using UK Earth System Model Z. Liu
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	Sector specific extension to an extremes indices dataset and comparisons to reanalyses R. Dunn	Conditional Decomposition Approach for Modeling Multivariate Extreme Events W. Huang
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	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: <u>Amphitheatre</u> Chair: B. Balogh, S.-K. Min	S01: Climate records Location: <u>Prudhomme</u> Chair: N. Lenssen, X. Wang	S09: Extreme value analysis methods and theory for climate applications Location: <u>Der Megreditchian</u> Chair: 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
16:50-17:05	Random Forest Based Tropical Cyclone Detection P. Vaithinada 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	Generating multivariate extremes using score-based generative networks and normalizing flows J. Wessel	Comparison of changepoint methods for homogenization of precipitation H. Alharthi	Optimizing the process of ensemble boosting using tailored iterative algorithms L. Bloin-Wibe
17:08-17:11	Incorporating physical knowledge to emulate the parameterizations of the IPSL model S. Crossouard	Atmospheric Features via Topological Data Analysis L. Seymour	The impact of two different atmospheric circulation patterns in Asia on low temperature events in Yunnan during winter H. Yan
17:11-17:14	Unraveling heatwave drivers using causal inference and climate model experiments D. Schumacher	Calculation of Irelands LTA grids 1961-2020 B. Coonan	The social psychological attribution of event attribution D. Stone
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	Development of a global empirical-statistical framework for the probabilistic assessment of wildfire risk in a changing climate Z. Liu
17:45-18:00	Identification of ENSO and IOD Impact on Average Monthly Rainfall in Indonesia Maritime Continent by Machine Learning R. Putra	Intercomparison of climatologies and trends in ocean precipitation across multiple datasets M. Bador	What are the hottest events between now and the end of the century? Y Robin
18:00-20:00	Icebreaker		

Tuesday 25 June 2024

09:00-10:30	S05: Statistics for climate models, ensemble design, uncertainty quantification, model tuning (Chair: T. DelSole, J. Salter, L. Terray) S03: Space-time statistical methods for modelling and analysing climate variability (Chair: D. Allard, B. Li) Location: <i>Amphitheatre</i>		
09:00-09:45	(S05) 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	(S03) Dynamic soil water for estimating degradation and restoration of soil health: A changepoint approach Detection of spatiotemporal changepoints in air quality – a generalised additive model approach R. Killick		
10:30-11:00	Coffee break and Posters		
11:00-12:30	S06: Statistical and machine learning in climate science (Chair: B. Balogh, S.-K. Min) S08: Attribution and analysis of single weather events (Chair: E. Fischer, M. Kirchmeier-Young) Location: <i>Amphitheatre</i>		
11:00-11:45	(S06) Interpretable stochastic weather generator, application to a crop model, and climate change analysis D. Metivier		
11:45-12:30	(S08) 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: <i>Amphitheatre</i> Chair: E. Fischer, M. Kirchmeier-Young	S06: Statistical and machine learning in climate science Location: <i>Prudhomme</i> Chair: B. Balogh, S.-K. Min	S05: Statistics for climate models, ensemble design, uncertainty quantification, model tuning Location: <i>Der Megreditchian</i> Chair: T. DelSole, J. Salter, L. Terray
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	Comparison of Results from Different Event Attribution Techniques for an Attribution Service P. Hope	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	Attribution of extreme weather events over Germany J. Schröter	Anomaly detection in daily temperature fields in Europe using VAEs: A new climate change attribution approach P. Zaninelli Garcia	Characterising spatial structure in climate model ensembles R. Chandler
14:48-14:51	Recent developments from World Weather Attribution C. Barnes	Separating Internal Variability from Anthropogenic Forcing Using Artificial Intelligence D. Techer	
14:51-14:54	On the storyline and likelihood for spatially compound flood-heat-flood events based on ensemble boosting Y. Guo		
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	Quasi-operational extreme event attribution at Beijing Climate Center Y. Sun	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	Translating historical extreme weather events into a warmer world E. Hawkins	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
15:40-16:20	Coffee break and Posters		
16:20-18:00	S08: Attribution and analysis of single weather events Location: <i>Amphitheatre</i> Chair: E. Fischer, M. Kirchmeier-Young	S01: Climate records Location: <i>Prudhomme</i> Chair: N. Lenssen, X. Wang	S05: Statistics for climate models, ensemble design, uncertainty quantification, model tuning Location: <i>Der Megreditchian</i> Chair: T. DelSole, J. Salter, L. Terray
16:20-16:35	A simple hybrid method to translate past weather events into the future climate J. Boé	Monthly Mean Surface Wind Speed Data Homogenization and Trend Characterization X. Wang	Constraining Regional Precipitation Projections by Benchmarking Model Performance R. Isphording
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	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 L. Schmutz
17:05-17:08	Impact of anthropogenic climate change on the frequency and intensity of extreme events in France in the context of conditional attribution C. Nadelsi	A NASA GISTEMPv4 Observational Uncertainty Ensemble N. Lenssen	
17:08-17:11	Perils, pitfalls, and proposals for extreme wind attribution based on the example of the 2022 Hurricane Fiona E. Malinina	Extending the Observational Record of Compound Drought and Heatwave Events for Future Risk Management K. Taylor	
17:11-17:14	Probabilistic attribution analysis and future risk assessment of the extreme meteorological conditions associated with the 2022 Euro-Mediterranean wildfires Z. Liu		
17:15-17:30	Global emergence of unprecedented lifetime exposure to climate extremes W. Thiery	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	Causal Attribution of Arctic Extreme Fire Weather Events to Anthropogenic Forcings L. Fielder	Sensitivity of Percentile-Based Extreme Temperature Indices: Implications for Climate Change Monitoring in an Era of Accelerated Warming Y. Yosef	Recent and Projected Changes in Climate Patterns in an extended Middle East and North Africa Region R. Fonseca
17:45-18:00	Attribution of area burned and other fire season characteristics: an example from the 2023 Canadian wildfire season M. Kirchmeier-Young	Assessing Seasonal Rainfall Trend in Federal Capital Territory (FCT) Abuja Nigeria A. Anokwu	Assessment of the LMDZ model to the dynamic and thermodynamic properties of cyclogenesis in the tropical Atlantic Ocean and on the West African coast D. Gueye

Wednesday 26 June 2024			
09:00-10:30	S04: Weather/climate forecasting, predictability and forecast evaluation (Chair: K. Lawal, D. Specq) S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events (Chair: Q. Sun, X. Zhang, J. Zscheischler) Location: <i>Amphitheatre</i>		
09:00-09:45	(S04) Strong El Niño events lead to robust multi-year ENSO predictability N. Lessen		
09:45-10:30	(S10) Can past analogue events inform on climate risk G. Hegerl		
10:30-11:00	Coffee break and Posters		
11:00-12:30	S07: Long-term detection and attribution and emergent constraints on future climate projections (Chair: C. Li, D. Stone) S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events (Chair: Q. Sun, X. Zhang, J. Zscheischler)		
11:00-11:45	(S07) Thirty years of optimal fingerprinting : What has it achieved? P. Stott		
11:45-12:30	(S10) 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: <i>Amphitheatre</i> Chair: E. Fischer, M. Kirchmeier-Young	S04: Weather/climate forecasting, predictability and forecast evaluation Location: <i>Prudhomme</i> Chair: K. Lawal, D. Specq	S07: Long-term detection and attribution and emergent constraints on future climate projections Location: <i>Der Megreditchian</i> Chair: 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	Towards compound extreme event attribution: hot and dry events in Belgium C. Deidda	Linear-Cost Vecchia Approximation of Multivariate Normal Probabilities J. Cao	Reducing the uncertainty of projected changes in extreme precipitation F. Zwiers
14:30-14:45	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	A Statistical Review on the Optimal Fingerprinting Approach in Climate Change Studies S. Chen
14:45-15:40	S10: Changes in extremes including temperature, hydrologic, and multi-variate compound events Location: <i>Amphitheatre</i> Chair: Q. Sun, X. Zhang, J. Zscheischler	S04: Weather/climate forecasting, predictability and forecast evaluation Location: <i>Prudhomme</i> Chair: K. Lawal, D. Specq	S07: Long-term detection and attribution and emergent constraints on future climate projections Location: <i>Der Megreditchian</i> Chair: C. Li, D. Stone
14:45-14:48	Assessment of recent trends in climate extremes over Kano State, Nigeria using statistical techniques H. Rasaq	Seasonal Forecast of precipitation during winter season Using Climate Predictability Tool (CPT) over Ethiopia A. Mostafa	Detection and attribution, optimal fingerprinting, atmospheric climate models, and Aotearoa New Zealand D. Stone
14:48-14:51	Projected Changes in Hot, Dry, and Compound Hot-Dry Extremes Over Global Land Regions P. De Luca	Operational seasonal prediction over Europe using multiple scenarios from a multi-model ensemble forecast D. Specq	Quantifying Earth's historical feedback using statistical learning on sea-surface temperature patterns G. Gyuleva
14:51-14:54	Frameworks for considering extreme weather risks in future climates given major uncertainties P. Watson	Advanced pattern techniques in weather and climate science F. Kwasniok	
14:55-15:10	Modelling back-to-back extreme rainfall events K. Saunders	The dynamics of persistent hotspells in European summers D. Pappert	The Detection and Attribution Model Intercomparison Project: CMIP6 highlights and plans for CMIP7 N. Gillett

15:10-15:25	Non-stationarity of the multi-temporal severity of meteorological drought in France J. Blanchet	Subseasonal and Seasonal drivers of European winter weather M. Kretschmer	An emergent constraint approach for making climate projections of Antarctic sea ice area decay D. Stephenson
15:25-15:40	Assessing Precipitation Intensity-Duration-Frequency Curves under Climate Change in Local Scale Catchments L. Bravo de Guenni	Seasonal Forecasts of Winter Temperature Improved by Higher-Order Modes of Mean Sea Level Pressure Variability in the North Atlantic Sector C. Dalelane	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: <i>Amphitheatre</i> Chair: Q. Sun, X. Zhang, J. Zscheischler	S04: Weather/climate forecasting, predictability and forecast evaluation Location: <i>Prudhomme</i> Chair: K. Lawal, D. Specq	S07: Long-term detection and attribution and emergent constraints on future climate projections Location: <i>Der Megreditchian</i> Chair: 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	Non-Parametric Climate Change Detection and Attribution: A Sequential Approach S. Gailliot
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	Time of Emergence Analysis in Climate Science A. Borowiak
17:05-17:08	Trends in severity of heat waves: an added value of three-dimensional (3D) insight O. Lhotka	Statistical downscaling of long-term summer temperature forecasts for Czechia S. Kliegrova	Progress in the detection and attribution of regional climate change D. Stone
17:08-17:11	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	Dynamic-statistical downscaling method for annual precipitation prediction in Yangtze River Basin and its application Y. Yang	Impacts of natural and anthropogenic forcings on historical and future changes in global-land surface air temperature in CMIP6–DAMIP simulations T. Zhao
17:11-17:14	Cluster of storms and insurance impact L. Hasbini	A Fuzzy Neural Network Bagging Ensemble Forecasting Model for 72-hour Forecast of Low-temperature Chilling Injury H. Lu	
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	Relating observational constraints and data assimilation A. Ribes
17:30-17:45	Anthropogenic increase in precipitation variability over the past century W. Zhang	Optimal transport for the multi-model combination of sub-seasonal ensemble forecasts C. Le Coz	Accounting for Pacific climate variability increases projected global warming Y. Liang
17:45-18:00	Joint assessment of trends in the bulk and extreme precipitation using non-stationary extended generalized Pareto distribution A. Haruna	Human against the machine - how does a modern multi-model ensemble seasonal forecast compare to the traditional SARCOF consensus outlook? P. Wolski	Reconciling the “hot model” problem in climate projections C. Li
19:30-23:00	Conference Dinner		

Thursday 27 June 2024			
09:00-10:30	S03: Space-time statistical methods for modelling and analyzing climate variability (Chair: D. Allard, B. Li) S07: Long-term detection and attribution and emergent constraints on future climate projections (Chair: C. Li, D. Stone) Location: <i>Amphitheatre</i>		
09:00-09:45	(S03) Bayesian nonparametric emulation and calibration of climate models M. Katzfuss		
09:45-10:30	(S07) 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: <i>Amphitheatre</i> Chair: Q. Sun, X. Zhang, J. Zscheischler	S04: Weather/climate forecasting, predictability and forecast evaluation Location: <i>Prudhomme</i> Chair: K. Lawal, D. Specq	S07: Long-term detection and attribution and emergent constraints on future climate projection Location: <i>Der Megreditchian</i> Chair: 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	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	Verification of extreme wet and dry cases in Brazil predicted by ECMWF S2S model I. Cavalcanti	Projected Global Temperature Changes after Net Zero are Small but Significant A. Borowiak
11:48-11:51	Record-breaking and record-shattering extremes in a warming climate E. Fischer	A new method for correcting model biases in decadal forecasts E. Sanchez Gomez	Attribution of long-term trends in the Western Mediterranean: exploring regional aspects D. Campos Diaz
11:51-11:54			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	Diagnostics and real-time subseasonal prediction of heat waves over India R. Mandal	Anthropogenic influence on seasonal extreme temperatures in eastern China at century scale T. Hu
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	Observational Uncertainty is Necessary for Assessing Time-of-Emergence N. Lenssen
12:25-12:40	Statistical modelling of extreme rainfall over Aotearoa New Zealand S. Rosier	Deep-Learning Weather Prediction: Case Studies and Model Deficiencies J. Wider	Observationally constrained attribution and projection of warming in Canada T. Li
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: <i>Amphitheatre</i> Chair: Q. Sun, X. Zhang, J. Zscheischler	IDAG Location: <i>Prudhomme</i>	S11: From global change to regional impacts, downscaling and bias correction Location: <i>Der Megreditchian</i> Chair: 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	Future risk of hyperthermia in French Guiana: assessing extreme values of Heat Index with multi-model analysis L. Bald		Semi-parametric, multisite precipitation weather generation using GAMLSS J. Wessel
14:48-14:51	Spatial return levels for meteorological variables, in climate change context J. Gomez Garcia		Ensemble bias correction of climate simulations: preserving internal variability P. Vaithinada Ayar
14:51-14:54	Causes of 2022 Atypical Meiyu in Lower Yangtze River Basin: Subseasonal Perspective and Its Predictions Z.-Q. Zhang		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
15:25-15:40	Increasing overlap of USA - Australia fire seasons poses challenges for firefighting cooperation D. Richardson		Diving into Deep Learning techniques for multi-site fire danger prediction through a pseudo-reality study O. Mirones
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: <i>Amphitheatre</i> Chair: Q. Sun, X. Zhang, J. Zscheischler	D&A Course Location: <i>Prudhomme</i>	S03: Space-time statistical methods for modelling and analyzing climate variability Location: <i>Der Megreditchian</i> Chair: D. Allard, B. Li
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	Emergence of climate change signals in a CMIP6 multi-model ensemble of extreme indices N. Schuhen		Basis for Change: Approximate Stationary Models for Large Spatial Data A. Sikorski
17:08-17:11	Attribution of extremes in the terrestrial carbon cycle I. Dunkl		Down-scaling of open-boundary vector fields using Gaussian Markov random fields M. Gillan
17:11-17:14	Analyzing 23 years of warm-season derechos in France: a climatology and investigation of synoptic and environmental changes L. Fery		Data-driven quantification of changing weather and climate risk using large-deviation theory F. Kwasniok
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			
09:00-10:30	S11: From global change to regional impacts, downscaling and bias correction (Chair: B. François, S. Thao) S12: Impact attribution: from source to suffering (Chair: G. Hegerl, J. Sillmann, W. Thiery) Location: <i>Amphitheatre</i>		
09:00-09:45	(S11) Deep Learning for Statistical Downscaling: Recent Advances and Perspectives J. González-Abad		
09:45-10:30	(S12) 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: <i>Amphitheatre</i> Chair: G. Hegerl, J. Sillmann, W. Thiery	S03: Space-time statistical methods for modelling and analyzing climate variability Location: <i>Prudhomme</i> Chair: D. Allard, B. Li	S11: From global change to regional impacts, downscaling and bias correction Location: <i>Der Megreditchian</i> Chair: 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	Trends in surface air temperature and its short-term variability: How are they related? An analysis based on PCA 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	Evolution of high-temperature extremes over the Euro-Mediterranean region and its impact on aircraft takeoff performance V. Gallardo
11:30-11:45	Storylines for heat-mortality extremes E. Fischer	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	The impact of future sea-ice loss on temperature extremes and human mortality in Canada E. Ball	Classifications of atmospheric circulation patterns: a tool for explaining asymmetry in day-to-day temperature differences R. Huth	
11:48-11:51	ECMWF ensemble model specific humidity skill verification in the region of Vietnam I. Perez		Future Scenarios Projections of Temperature, Precipitation and Extreme Climate Indexes over Guangxi X. Zhou
11:51-11:54			
11:55-12:40	S12: Impact attribution: from source to suffering Location: <i>Amphitheatre</i> Chair: G. Hegerl, J. Sillmann, W. Thiery	S03: Space-time statistical methods for modelling and analyzing climate variability Location: <i>Prudhomme</i> Chair: D. Allard, B. Li	S08: Attribution and analysis of single weather events Location: <i>Der Megreditchian</i> Chair: E. Fischer, 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
12:10-12:25	Extreme heatwaves in Europe 1950-2021: analysis of the links between meteorology, population, and impacts L. Mandonnet		Contribution of External Forcing and Internal Variability to Recent Extreme Rainfall Trends in the Horn of Africa J. Kitmutai

12:25-12:40	Direct and lagged climate change effects intensified the widespread 2022 European drought E. Bevacqua	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 <i>Location: <u>Amphitheatre</u></i> Chair: G. Hegerl, J. Sillmann, W. Thiery	S03: Space-time statistical methods for modelling and analyzing climate variability <i>Location: <u>Prudhomme</u></i> Chair: D. Allard, B. Li	S08: Attribution and analysis of single weather events <i>Location: <u>Der Megreditchian</u></i> Chair: 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	Arctic marine heatwaves forced by greenhouse gases and triggered by abrupt sea-ice melt A. Barkhordarian
14:15-14:30	Impact Attribution - how did climate change affect wheat yields in northern Kazakhstan? P. Romanovska	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		Quantifying ENSO teleconnections in a variable climate A. King	Multiple attribution analysis for heat wave events in Argentina in the summer of 2022/23 using the analogue technique S. Collazo
14:48-14:51			Disentangling the Contribution of Greenhouse Gases and Aerosols to Estimates of Regional Heatwave Return Periods F. Kraulich
14:51-14:54			The impact of two different atmospheric circulation patterns in Asia on low temperature events in Yunnan during winter H. Yan
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
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 disproportionately 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
15:40-16:20	Coffee Break and Posters		
16:20-18:00	S12: Impact attribution: from source to suffering <i>Location: <u>Amphitheatre</u></i> Chair: G. Hegerl, J. Sillmann, W. Thiery	S03: Space-time statistical methods for modelling and analyzing climate variability <i>Location: <u>Prudhomme</u></i> Chair: D. Allard, B. Li	S08: Attribution and analysis of single weather events <i>Location: <u>Der Megreditchian</u></i> Chair: E. Fischer, M. Kirchmeier-Young
16:20-16:35	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	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	Aridification and its impacts on terrestrial hydrology and ecosystems over a comprehensive transition zone in China Z. Li	Characterization of hot-dry spatially compound events using probabilistic networks C. Graafland	Relative contributions of anthropogenic forcing and internal variability in southeast Australia's multi-year (2017-2019) drought and future prospects S. Rauniyar
16:50-17:05	Navigating Climate Change Health Impacts: Unveiling the Role of Behavioural Communication N. Okoko	On the statistical distribution of temperature and the classification of extreme events considering season and climate change – an application in Switzerland S. Scherrer	Anthropogenic Influence on 2022 Extreme January–February Precipitation in Southern China Y. Hu
17:05-17:08		Low-frequency climatic variability and trends in Central Argentina D. Panza	An attribution atlas for Aotearoa New Zealand D. Stone
17:08-17:11		Analyzing Climate Trends in Southern Africa: A Comparative Study of Observed and Modeled Data on Regional Warming I. Pinto	
17:11-17:14		Unveiling seasonal synoptic-scale links: A global evaluation of atmospheric circulation and climate connections J. Stryhal	
17:15-17:30		Variation of dry spell over Makurdi, Benue State, Nigeria P. Iheme	
17:30-17:45		A detailed stationarity analysis and trend modelling of French daily precipitations E. Paquet	
17:45-18:00		Wet season onset and termination in south-western Cape, South Africa N. Ndebele	