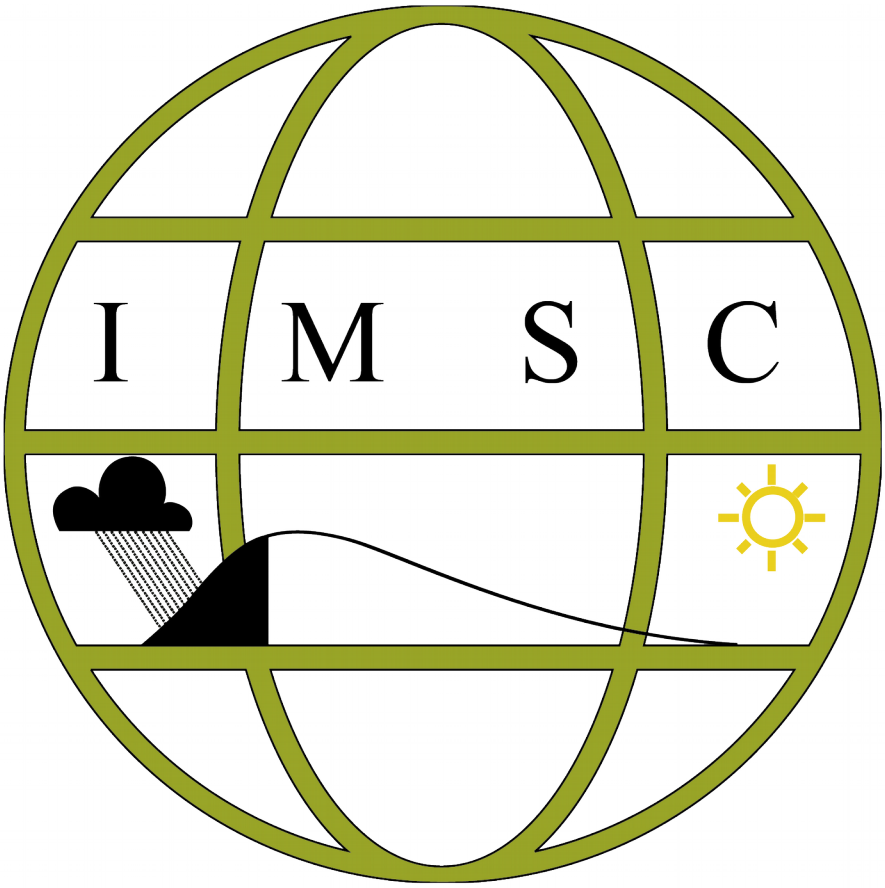

14th IMSC - Toulouse

24 – 28 June 2019

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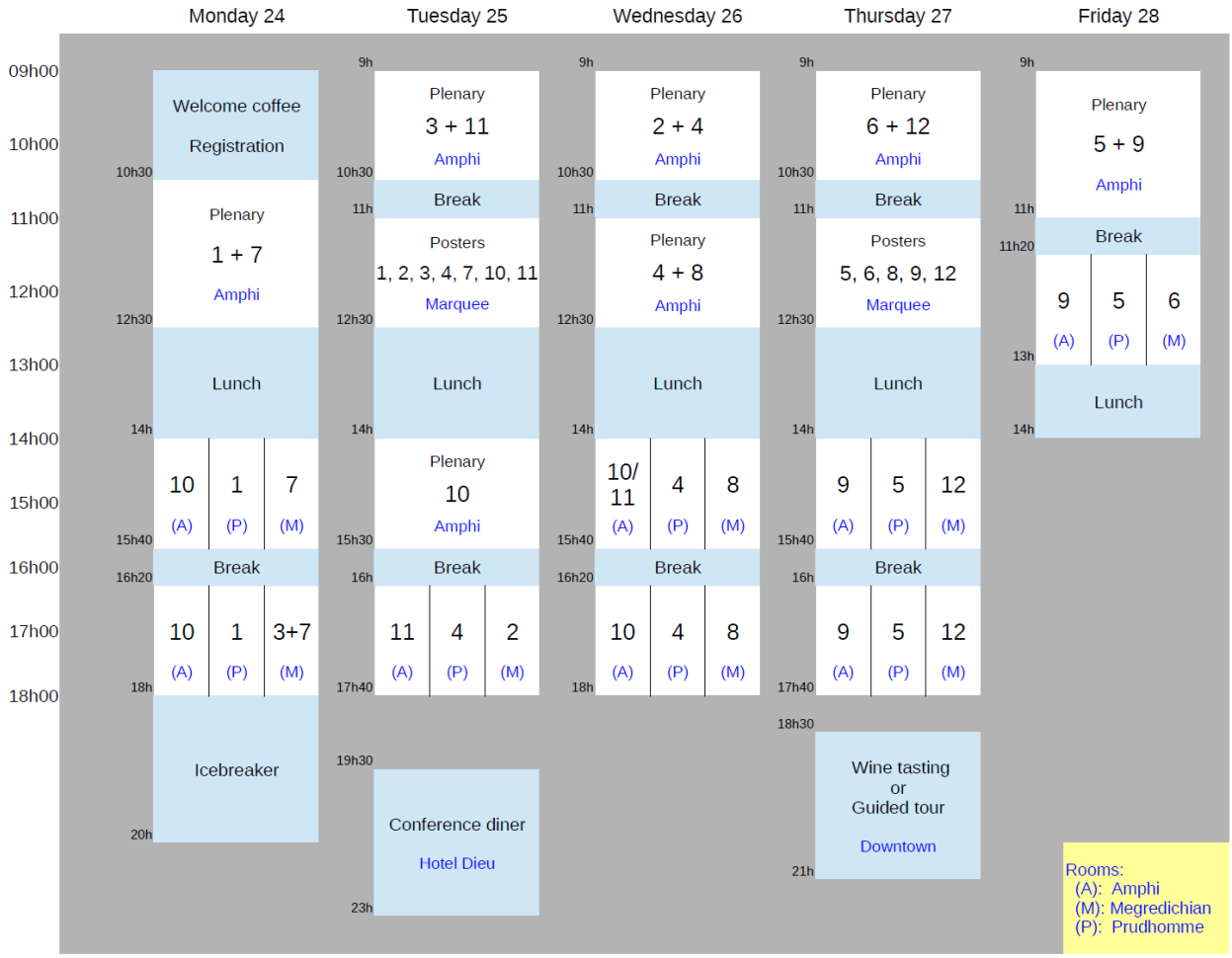
14th International Meeting on Statistical Climatology (IMSC)

Week at a glance



List of sessions

1. Climate records: data homogenization, dataset creation, and uncertainty
2. Interactions of weather and climate with human and natural systems
3. Statistical issues working with large datasets and model outputs
4. Space-time statistics for modeling and analyzing climate variability
5. Weather/climate predictability and forecast evaluation
6. Statistics for climate models, ensemble design, uncertainty quantification, model tuning
7. Statistical and machine learning in climate science
8. Long-term D&A and emergent constraints on future climate projections
9. Attribution and analysis of single weather events
10. Changes in extremes including temperature, hydrologic, and multivariate compound events
11. Extreme value analysis for climate applications
12. From global change to regional impacts, downscaling and bias correction

14th International Meeting on Statistical Climatology (IMSC)

Detailed agenda

Monday 24 June 2019			
09:00-10:30	**Registration & welcome coffee**		
10:30-11:30	**S01: Climate records: data homogenization, dataset creation, and uncertainty** Location: *Amphitheatre* Chair: **J. Kennedy, X. L. Wang**		
10:30-11:00	New estimates of bias in historical sea surface temperature records. **E. Kent**		
11:00-11:30	An Analysis of Daily Mean Air Temperature Across the Globe for the EUSTACE project. **C. Morice**		
11:30-12:30	**S07: Statistical and machine learning in climate science** Location: *Amphitheatre* Chair: **P. Naveau, M. F. Wehner**		
11:30-12:00	Topological Data Analysis and Machine Learning methods for pattern detection in spatiotemporal climate data. **K. Kashinath**		
12:00-12:30	Modeling large rainfall accumulations over several days in the French Alps using low-dimensional atmospheric predictors based on analogy. **J. Blanchet**		
12:30-14:00	**Lunch break**		
14:00-15:40	**S10-O1: Changes in extremes** Location: *Amphitheatre* Chair: **S.-K. Min, J. Sillmann**	**S01-O1: Climate records** Location: *Prudhomme* Chair: **J. Kennedy, X. L. Wang**	**S07-O1: Statistical and machine learning** Location: *Der Megreditchian* Chair: **P. Naveau, M. F. Wehner**
14:00-14:20	Detection of a climate change signal in extreme heat, heat stress and cold in Europe. **R. Lorenz**	Improvements in the uncertainty model in the Goddard Institute for Space Studies Surface Temperature (GISTEMP) analysis. **N. J L Lenssen**	Simulation of Extreme Heatwaves with Empirical Importance Sampling. **P. Yiou**
14:20-14:40	Compound hot / dry events and regional climate sensitivity. **S. I. Seneviratne**	Progress and Insights Towards a New Instrumental Reconstruction of SST and MAT. **R. A. Rohde**	Applying machine learning to improve simulations of dynamical systems using empirical error correction. **P. Watson**
14:40-15:00	Increase in daily temperature variability during early growing season. **X. Zhang**	More homogeneous early 20th-century sea surface warming after correcting for historical artifacts. **D. Chan**	Atmospheric Features via Topological Data Analysis. **L. Seymour**
15:00-15:20	Impacts of half a degree additional warming on the global heat stress changes. **S-M. Lee**	A 140-year high-resolution meteorological reanalysis over France through offline data assimilation in an ensemble of downscaled reconstructions from 20CR. **A. Devers**	Statistical-dynamical seasonal prediction of summer precipitation over China based on machine learning. **J. Wang**
15:20-15:40		Uncertainty in Satellite estimate of Global Mean Sea Level changes, trend and acceleration. **B. Meyssignac**	Deep Learning recognizes Weather and Climate Patterns. **K. Kashinath**
15:40-16:20	**Coffee break**		
16:20-18:00	**S10-O2: Changes in extremes** Location: *Amphitheatre* Chair: **S.-K. Min, J. Sillmann**	**S01-O2: Climate records** Location: *Prudhomme* Chair: **J. Kennedy, X. L. Wang**	**S07-O2 / S03-O: Joint session on big data** Location: *Der Megreditchian* Chair: **P. Naveau, E. M. Fischer**
16:20-16:40	Detectable increase in extreme precipitation with global	Uncertainties in the estimation of precipitation	Penalized basis models for very large spatial datasets.

	warming over global land monsoon region. **W. Zhang**	extremes in quasi-global observational datasets. **M. Bador**	**W. Kleiber**
16:40-17:00	Future evolution of extreme precipitation in Mediterranean basins. **Y. Tramblay**	Detected changes in precipitation extremes at their native scales derived from in situ measurements. **M. Risser**	Topological survival analysis for the comparison of random fields. **H. Johnson**
17:00-17:20	The connection between protracted drought and extreme precipitation. **A. Gallant**	Comparison of tests to detect changes in mean and variance in climatological series. **J. A. Guijarro**	Bayesian analysis of multifidelity computer models with large output and non-nested experimental designs: Application to the Weather Research and Forecasting (WRF) model. **B. A. Konomi**
17:20-17:40	Do more extreme precipitation events intensify more rapidly with warming than less extremes events? **C. Li**	A Segmentation Method for the Homogenization of GNSS IWV Time Series with R-Package GNSSseg. **A. Quarello**	Stochastic energy balance models: fitting to time series via a maximum likelihood approach. **D. P. Cummins**
17:40-18:00	Changes in extreme rainfall seasonality in Australia. **R. Dey**		Estimating Precipitation Extremes using the Spatial Log-Histospline. **W. K. Huang**
18:00-20:00	**Icebreaker**		

Tuesday 25 June 2019	
09:00-10:00	**S03: Statistical issues working with large datasets and model outputs** Location: *Amphitheatre* Chair: **E. M. Fischer, D. W. Nychka**
09:00-09:30	Building blocks for a statistically advanced daily temperature reconstruction system. **F. Lindgren**
09:30-10:00	Statistics for Ocean Heat Content Estimation with Argo Profiling Floats. **M. Kuusela**
10:00-10:30	**S11: Extreme value analysis for climate applications** Location: *Amphitheatre* Chair: **R. Smith, X. Zhang**
10:00-10:30	Statistical methods and software for extreme value analysis and quantifying uncertainty in extreme event attribution. **C. J. Paciorek**
10:30-11:00	**Coffee break**
11:00-12:30	**POSTER SESSION 1** Location: *Marquee*
	S01 posters: Climate records 01 - Comparison of Two Homogenized Datasets of Daily Maximum/Mean/Minimum Temperature in China during 1960-2013.**Z. Li** 02 - HOSTACE: Reconstructing the Global Historical SST Field. **E. Kent** 03 - Long-term trends in extreme temperature and precipitation indices for Israel based on a new daily homogenized database. **Y. Yosef** 04 - Extension of a Blended Monthly Precipitation Dataset to the Pre-Satellite Era. **X. L. Wang** 05 - Homogenisation of temperature in Sweden: sensitivity and robustness of the Climatol toolbox. **C. Sturm** 06 - German climate reference stations – Using parallel measurements to analyze the quality and homogeneity of long time series. **L. Hannak** 07 - Homogenization of Croatian Monthly Precipitation Data Series (1961-2018) by the ACMANT Method. **D. Rasol** 08 - The CLICES project: Climate data rescue from Annual Book, creation of secular database and study of uncertainty. **D. Peña-Angulo**
	S02 posters: Interactions of weather and climate with human and natural systems 09 - Climate Indices in the Network of Experts. **K. O. Stanley** 10 - Bayesian Information Criterion based Markov Chain Analysis of Some Pollutants Resulted From Heavy Use of Fireworks Over Kolkata, India. **S. Karmakar** 11 - On the interactions between teleconnection patterns and fire. **K. A. Lawal**
	S03 posters: Statistical issues working with large datasets and model outputs 12 - Projected change of precipitation over China under 1.5°C and 2°C based on model performance and independence. **L. Zhao**
	S04 posters: Space-time statistics for modeling and analyzing climate variability 13 - The origin of the East Asian summer monsoon. **K-H. Seo** 14 - Joint probability distributions from a simple hydrologic model with a climate threshold. **R. Olson** 15 - A preferred circulation regime in the extratropical lower stratosphere associated with regional persistent extreme precipitation events in Central-Eastern China. **L. Zhao** 16 - On the Roles of Anthropogenic and Volcanic Aerosols and Greenhouse Gases in Forcing 20th Century Sahel Precipitation. **R. J. Herman** 17 - Spatial correlations of daily precipitation in China. **C. H. Fan** 18 - Co-exchangeable time-series modelling to infer future climate from multiple climate model runs. **S. Siegert** 19- Quantifying the Agreement Between Observed and Simulated Extratropical Modes of Interannual Variability. **C. Bonfils**
	S07 posters: Statistical and machine learning in climate science 20 - Physics-informed generative learning to emulate unresolved physics in climate models. **K. Kashinath** 21 - Probabilistic Detection of Atmospheric Rivers. **M. D. Risser** 22 - A Statistical Framework for Modeling Tropical Cyclone Genesis and Assessing Differences in Basins and Climates. **K. Kashinath**
	S10 posters: Changes in extremes including temperature, hydrologic and multivariate compound events

	23 - Differences in climate change impacts among weather patterns: spatial heterogeneous changes of future extreme rainfall. **M. Ohba** 24 - Daily Rainfall Intermittency Characterisation and Trend Analysis under Climate Change over North-eastern North America. **P. Vaittinada Ayar** 25 - Characterization of spatial and temporal trends of extreme precipitation using functional principal component analysis. **M. Ishihara** 26 - Observed Changes in Extreme Temperature over the Global Land Based on a Newly Developed Daily Dataset. **P. Zhang** 27 - Compound events of drought and extremely hot summers. **A. C. Russo** 28 - Half-a-degree difference in global warming matters for reducing and delaying global land exposure to compound hot extremes. **Y. Chen** 29 - Non stationary POT model for extreme temperature and precipitation analysis in Burkina Faso. **B. Sawadogo** 30 - Satellites reveal increase in length of dry periods preceding seasonal rains worldwide. **I. Petrova** 31 - Do droughts self-propagate and self-intensify? **F. Smessaert**		
	S11 posters: Extreme value analysis for climate applications 32 - Characterization of ERA-5 daily precipitation using the Extended Generalized Pareto Distribution. **P. Rivoire** 33 - Robust extreme value analysis: the bulk matching method. **F. Kwasniok** 34 - Spatio-temporal extreme quantile estimation of snow-related quantities in the French Alps. **E. Le Roux** 35 - Statistical Modeling of Projected Changes in Extreme Wet Spells over China in the Late 21st Century. **L. Zhu** 36 - Does extreme value theory produce reliable estimates of long return period climate extremes? **F. Zwiers** 37 - Analysis of precipitation intensity in the Czech Republic - past and present. **S. Kliegrová** 38 - Extremal dependence in spatial natural hazard footprints. **L. C. Dawkins** 39 - Modeling Compound Wind and Precipitation Extremes using a Large Climate Model Ensemble. **W. K Huang**		
12:30-14:00	**Lunch break**		
14:00-15:30	**S10: Changes in extremes including temperature, hydrologic and multivariate compound events** Location: *Amphitheatre* Chair: **S-K. Min, J. Sillmann**		
14:00-14:30	An overview of how observations have advanced the WCRP Grand Challenge on Extremes. **L. Alexander**		
14:30-15:00	Forced response, warming pauses and surge events in temperature and heavy precipitation extremes. **E. M. Fischer**		
15:00-15:30	The dependence between variables in climate model simulations: multivariate bias correction, multivariate hazards, and estimation of time of departure from recent climate variability. **A. Cannon**		
15:30-16:00	**Coffee break**		
16:00-17:40	**S11-O1: Extreme value analysis** Location: *Amphitheatre* **Chair: R. Smith, X. Zhang**	**S04-O1: Space-time statistics** Location: *Prudhomme* **Chair: T. Delsole**	**S02-O: Interactions w human & natural systems** Location: *Der Megreditchian* **Chair: R. Chandler**
16:00-16:20	A comparison of tail models for extreme value analysis of wind speed using large datasets of seasonal forecasts. **C. de Valk**	Emulating ESMs' Temperatures: From Global Mean Temperature Trajectories to Grid Point Level Realizations. **L. Beusch**	Compound events in southern Australia and future projections. **N. Earl**
16:20-16:40	Extra-Parametrized Extreme Value Copula: Extension to a Spatial Framework. **J. Carreau**	Comparison of tests of collective statistical significance applied to detection of trends. **R. Huth**	Bivariate modelling of the joint dependence between droughts and crop yield. **A. Ribeiro**
16:40-17:00	Quantifying weather and climate risk using large-deviation theory. **F. Kwasniok**	Multiple hypothesis testing corrections in the analysis of climate data. **J. Cortés**	Using a statistical approach to estimate global heatwave risk. **J. Sillmann**
17:00-17:20	Probability distribution of extreme climate variables using multivariate extreme value analysis. **F. Zwiers**	A New Criterion for Selecting Multivariate Models. **T. Delsole**	
17:20-17:40	Modelling changes in the extremal dependence of temperature maxima. **K. Saunders**		
19:30-23:00	**Conference dinner at "Hôtel-Dieu Saint-Jacques"**		

Wednesday 26 June 2019			
09:00-10:00	**S02: Interactions of weather and climate with human and natural systems** Location: *Amphitheatre* **Chair: R. Chandler**		
09:00-09:30	Constructing indices to monitor the impact of weather on human health. **F. Chebana**		
09:30-10:00	Taking into account the non-stationarity of historical sources in a spatio-temporal relative risk model to infer climate change impact on avalanche activity: application to 240 years of data in the Vosges Mountains. **N. Eckert**		
10:00-10:30	**S04: Space-time statistics for modeling and analyzing climate variability** Location: *Amphitheatre* **Chair: T. Delsole**		
10:00-10:30	Transitions and irreversibility of weather regimes. **M. C. Alvarez-Castro**		
10:30-11:00	**Coffee break**		
11:00-11:30	**S04: Space-time statistics for modeling and analyzing climate variability** Location: *Amphitheatre* **Chair: T. Delsole**		
11:00-11:30	Uncovering the forced climate response using statistical learning and application to hydro-meteorological changes in Central European winter. **S. Sippel**		
11:30-12:30	**S08: Long-term D&A and emergent constraints on future climate projections** Location: *Amphitheatre* **Chair: D. Hammerling**		
11:30-12:00	Causes of climate change over the industrial period – understanding the past and predicting the future. **G. Hegerl**		
12:00-12:30	Quantifying uncertainty in climate projections based on emergent constraints. **P. G. Sansom**		
12:30-14:00	**Lunch break**		
14:00-15:40	**S11-O2 / S10-O3: Joint session on extremes** Location: *Amphitheatre* **Chair: R. Smith, J. Sillmann**	**S04-O2: Space-time statistics** Location: *Prudhomme* **Chair: M. C. Alvarez-Castro**	**S08-O1: Long-term D&A** Location: *Der Megreditchian* **Chair: D. Hammerling**
14:00-14:20	Trends in the extremes of environments associated with severe US thunderstorms. **J. Koh**	Statistical space-time diagnostics of ENSO diversity and associated tropical Pacific rainfall variability, and evaluation of their reproducibility in APCC MME seasonal prediction. **S-J. Sohn**	Cointegration for improved detection and attribution of climate change trends. **D. B. Stephenson**
14:20-14:40	Detection and Attribution for Extreme Storms in the Gulf of Mexico. **R. Smith**	Annual cycle of the NAO and other circulation modes over the Euro-Atlantic sector. **R. Huth**	A Bayesian detection and attribution analysis of extreme temperature changes. **M-G Seong**
14:40-15:00	Copula-based clustering of concurrent flood risks via hazard scenarios. **R. Pappadà**	Southern African summer rainfall variability, and its teleconnections, on interannual to interdecadal timescales in CMIP5 models. **J. Eden**	Data driven Detection and Attribution. **E. Szekely**
15:00-15:20	Using rates of temperature record-breaking as a dataset comparison and model evaluation tool. **A. D. King**	A statistical assessment of co-occurrences between ENSO's different flavors and global patterns of seasonal climate anomalies. **R. Donner**	Human influences on the joint changes in temperature, rainfall and aridity. **C. Bonfils**
15:20-15:40	Concurrent climate extreme. **A. Toreti**		Confidence Intervals in Optimal Fingerprinting. **T. Delsole**
15:40-16:20	**Coffee break**		

16:20-18:00	**S10-O4: Changes in extremes** Location: *Amphitheatre* **Chair: S-K Min, J. Sillmann**	**S04-O3: Space-time statistics** Location: *Prudhomme* **Chair: T. Delsole**	**S08-O2: Long-term D&A** Location: *Der Megreditchian* **Chair: D. Hammerling**
16:20-16:40	Changes in the Arctic Ocean wave extremes: implications to coastal erosion and inundation. **M. Casas-Prat**	Hurst exponent approach through rescaled range analysis to explore surface air temperature over eastern India and quantification of uncertainty through Shannon entropy. **S. Karmakar**	Detection and attribution of ocean warming to provide constraints on the effective climate sensitivity due to greenhouse-gas forcing. **K. Tokarska**
16:40-17:00	Thermodynamical and residual trends of singular hot days in Europe. **A. Jézéquel**	Self-organizing maps: how they relate to modes of circulation variability. **R. Beranova**	Attribution of regional sea level trends to atmospheric forcing and oceanic chaos: results from an ocean simulation ensemble, and application to observed trends. **T. Penduff**
17:00-17:20	Importance of zonal versus meridional atmospheric flow for climate extremes in the Southern Hemisphere. **G. Boschat**	Automated classifications of atmospheric circulation patterns: A global perspective**. J. Stryhal**	Detection and attribution of artificial ocean alkalinization and stratospheric sulfur injection. **F. Fröb**
17:20-17:40	Temperature-Duration-Frequency curves integrating information concerning climate variability and change. **T. Ouarda**	Exploring periodicity of solar activity and rainfall in the south-western Cape, South Africa. **N. E. Ndebele**	On the emergence of anthropogenic signal in extreme precipitation change over China. **W. Li**
17:40-18:00	39-years of observed climate variability and change in Paris area based on multi-variable analysis. **J. Ringard**	Predicting meridional overturning circulation collapse using nonstationary principal oscillation pattern analysis. **F. Kwasniok**	Observational constraints for European climate projections. **S. Qasmi**

Thursday 27 June 2019	
09:00-09:30	**S06: Statistics for climate models, ensemble design, uncertainty quantification, model tuning** Location: *Amphitheatre* **Chair: B. Sanderson**
09:00-09:30	Partitioning uncertainty components of an incomplete ensemble of climate projections using data augmentation. **G.Evin**
09:30-1:30	**S12: From global change to regional impacts, downscaling and bias correction** Location: *Amphitheatre* **Chair: A. Cannon, M. Vrac**
09:30-10:00	Statistical techniques to ensure the distillation of robust climate information through downscaling. **R. E. Benestad**
10:00-10:30	Texture-aware statistical downscaling. **G. Mariethoz**
10:30-11:00	**Coffee break**
11:00-12:30	**POSTER SESSION 2** Location: *Marquee*
	S05 posters: Weather/climate predictability and forecast evaluation 01 - CSTools R package: handy post-processing tool for state-of-the-arts methods of seasonal forecasts. **N. Pérez-Zanón** 02 - Multi-model skill assessment of near-term decadal climate change information for decision making in agricultural sector. **B. S. Murali** 03 - A Bayesian framework for postprocessing multi-ensemble weather forecasts. **C. Barnes** 04 - Influence of ENSO and consistency between models on seasonal forecast skill. **C. Viel** 05 - Calibration of Multivariate Ensemble Forecasts. **H. Bahaykh** 06 - Evaluation of rainfall Seasonal Forecast: An operational case study. **M. C. Alvarez-Castro** 07 - Seasonal forecast of summer warm days in Argentina by using principal component regression and a bias correction method. **M. Rusticucci** 08 - An empirical prediction approach for seasonal circumboreal forest fire activity. **J. Eden** 09 - Co-variability between Climate Indices and the Spread of Seasonal Climate Simulations over South Africa. **K. A. Lawal** 10 - Improving drought forecast skill: a weather pattern approach. **D. Richardson** 11 - Towards onset: shades of ENSO skill. **D. T. Squire**
	S06 posters: Statistics for climate models, ensemble design, uncertainty quantification, model tuning 12 - Irreducible Uncertainties in Future Sea Level Rise: The importance of Internal Climate Variability. **M. Becker**
	S08 posters: Long-term D&A and emergent constraints on future climate projections 13 - Temperature and precipitation projection at 1.5 °C and 2.0°C increase in global mean temperature. **T. Hu** 14 - Detection and Attribution of precipitation extremes in Asia based on the new Asian observational data. **S. Dong** 15 - Changes and Attribution of Water vapor since the 1970s over China. **T. Zhao**
	S09 posters: Attribution and analysis of single weather events 16 - Diminishing winter blue skies from Beijing with global warming. **P. Lin** 17 - Adapting attribution science to the climate extremes of tomorrow. **L. J. Harrington** 18 - Progress in the International CLIVAR C20C+ Detection and Attribution Project. **D. Stone** 19 - Attribution of cold and hot extreme events in the UK in 2018. **N. Christidis** 20 - Concurrent 2018 hot extremes across Northern Hemisphere due to human-induced climate change. **S. I. Seneviratne** 21 - Attributing human influence on the July 2017 Chinese heatwave: the influence of sea-surface temperatures. **S. Sparrow** 22 - Assessing dynamical changes in atmospheric circulation patterns associated to weather extreme events. **D. Faranda** 23 - Extreme precipitation in the Netherlands: an event attribution case study. **J. Eden** 24 - Detection and Attribution of the Late Onset of the 2015 Wet Season in Nigeria. **K. A. Lawal**

	25 - Anthropogenic contribution to the 2017 earliest summer onset in South Korea. **S-K. Min** 26 - Anthropogenic influences on the persistent summer night-time heat waves over North-East China. **D. Wang** 27 - A seasonal prediction framework for the attribution of extreme events in a changing climate. **P. Hope**		
	S12 posters: From global change to regional impacts, downscaling and bias correction 28 - Statistical downscaling of a high resolution climate projection ensemble for Germany and it's river catchments. **S. Krähenmann** 29 - Multivariate stochastic bias correction with optimal transport. **Y. Robin** 30 - Statistical tools for Mediterranean Seasonal Forecast (CMCC MEDSCOPE CSTools). **M. C. Alvarez-Castro** 31 - The benefits of increasing resolution for global versus regional climate simulations for European climate extremes. **C. Iles** 32 - Evaluation and projection of daily precipitation over China based on statistical-dynamical downscaling. **Z. Jiang** 33 - Observing the atmospheric water at different scale: linking water vapour measurements and cloud profiles with a non-parametric downscaling method. **V. Michot** 34 - Regression quantile mapping for distribution and trend preserving bias correction of climate model outputs. **R. Donner** 35 - Comparison of univariate and multivariate bias correction techniques for hydrologic impact modelling. **J. Van de Velde**		
12:30-14:00	**Lunch break**		
14:00-15:40	**S09-O1: Event attribution** Location: *Amphitheatre* **Chair: C. J Paciorek**	**S05-O1: Predictability & forecast evaluation** Location: *Prudhomme* **Chair: M. Rusticucci, D. Stephenson, T. Thorarinsdottir**	**S12-O1: Downscaling & bias correction** Location: *Der Megreditchian* **Chair: A. Cannon, M. Vrac**
14:00-14:20	The question of life, the universe, and event attribution. **D. Stone**	Evaluation of extreme events with the CRPS Distribution. **M. Taillardat**	Statistical downscaling of EAWM into a Korean Local Basin Climate using a Weather Generator. **M. Kim**
14:20-14:40	Embracing the complexity of extreme weather events when quantifying their likelihood of recurrence in a warming world. **L. J. Harrington**	Evaluating forecasts when truth is uncertain. **C. Ferro**	Non-parametric Bias Correction of Multivariate and High-dimensional Climate Simulations: the R2D2 approach. **M. Vrac**
14:40-15:00	Event Attribution of Climate Changes with dynamically driven-Stochastic Weather Generators. **S. Chen**	The diagonal score. **Z. Ben Bouallegue**	Downscaling of fields of precipitation by a spatial weather generator accounting for climate non-stationarities: SpaWeaGen-DS. **P. Vaittinada Ayar**
15:00-15:20	Defining single extreme weather events in a climate perspective. **J. Cattiaux**	Revisiting the Climatology Reference in Seasonal Forecasting of Precipitation. **N. J L Lenssen**	Model selection for DeFoReSt: a strategy for recalibrating decadal predictions. **A. Pasternack**
15:20-15:40	Describing the relationship between a weather event and climate change: a new statistical approach. **A. Ribes**	Verification scores basing on the Earth Mover's Distance. **A. Düsterhus**	New approach for stochastic downscaling and bias correction of daily mean temperatures to a high-resolution grid. **Q. Yuan**
15:40-16:00	**Coffee break**		
16:00-17:40	**S09-O2: Event attribution** Location: *Amphitheatre* **Chair: C. J. Paciorek**	**S05-O2: Predictability & forecast evaluation** Location: *Prudhomme* **Chair: M. Rusticucci, D. Stephenson, T. Thorarinsdottir**	**S12-O2: Downscaling & bias correction** Location: *Der Megreditchian* **Chair: A. Cannon, M. Vrac**
16:00-16:20	Importance of framing for extreme event attribution: the role of spatial and temporal scales. **M. C. Kirchmeier-Young**	Impact of initialisation on the reliability of decadal predictions. **D. Verfaillie**	Spatial Analogs for Agricultural Applications: How Best to Order Climate Indices Calculation and Bias Correction before Identifying Analogs? **P. Grenier**
16:20-16:40	Extreme Event Attribution: experiences from teaching scientists. **S.F.B. Tett**	A framework to determine the limits of achievable skill for interannual to decadal climate predictions. **M. G. Donat**	Testing the stationary assumption of statistical downscaling using dynamical downscaling model output as pseudo observation**. C-T. Chen**
16:40-17:00	A new framework for the statistical validation of event attribution ensembles. **A. M. Ciavarella**	The seasonal predictability of rainfall extremes in Australia and associated predictive skill in ACCESS-S. **A. D. King**	Evaluating a bias correction in non-stationary context. **Y. Robin**

17:00-17:20	Attribution for record events: a simple extension for a non-stationary climate**. S. Thao**	On climate predictability: A new perspective from scaling and climate memory. **N. Yuan**	Adaptation of the ADAMONT statistical downscaling method for seasonal prediction systems. **P. Marson**
17:20-17:40	Evaluating models used for event attribution over Africa. **P. Wolski**	Subseasonal predictability of heavy precipitation in the southwest tropical Pacific in relation with the Madden-Julian Oscillation. **D. Specq**	Interpolation approaches based on auxiliary data to extend temporally climatic series for water stress retrieval in central Tunisia. **N. Farhani**
18:30-21:00	**Social event**		

Friday 28 June 2019			
09:00-10:30	**S09: Attribution and analysis of single weather events** Location: *Amphitheatre* **Chair: C. J. Paciorek**		
09:00-09:30	Framing issues in extreme event attribution. **T. Shepherd**		
09:30-10:00	Towards reliable extreme weather and climate event attribution. **M. G. Donat**		
10:00-10:30	Attributing heat waves is hard. **G. J. Van Oldenborgh**		
10:30-11:00	**S05: Weather/climate predictability and forecast evaluation** Location: *Amphitheatre* **Chair: M. Rusticucci, D. Stephenson, T. Thorarinsdottir**		
10:30-11:00	Forecast evaluation with imperfect observations and imperfect models. **P. Naveau**		
11:00-11:20	**Coffee break**		
11:20-13:00	**S09-O3: Event attribution** Location: *Amphitheatre* **Chair: C. J. Paciorek**	**S05-O3: Predictability & forecast evaluation** Location: *Prudhomme* **Chair: M. Rusticucci, D. Stephenson, T. Thorarinsdottir**	**S06-O: Statistics for climate models** Location: *Der Megreditchian* **Chair: B. Sanderson**
11:20-11:40	Disentangling the causes of the year without a Summer. **A. P. Schurer**	Improving ENSO forecasts using Bayesian model averaging. **P-S Chu**	Use of machine learning techniques for model parameters tuning. **L. Descamps**
11:40-12:00	Irrigation versus global warming. **W. Thiery**	Regime-dependent statistical post-processing of ensembles of weather forecasts. **S. Allen**	60km and 90km resolution GCMs for Large-ensemble Climate Simulations in climateprediction.net. **P. Watson**
12:00-12:20	No sign of climate change in the unprecedented Summer 2018 flow over Europe. **C. Iles**	A statistical approach to forecasting non-stationary climate indices. **P. G. Sansom**	Can we beat climate model democracy in multi-model ensemble projections? **R. Lorenz**
12:20-12:40	The Influence of Anthropogenic Climate Change on the 2015-2017 Drought in the south-Western Cape, South Africa. **P. Wolski**	Statistical Postprocessing of Seasonal Weather Forecasts. **C. Heinrich**	Impact of parametric uncertainty on simulated climate extremes and attribution studies. **B. Timmermans**
12:40-13:00	When climate change is not to blame (but we still suspect it is important). **F. Otto**		Use of Gaussian processes to assess the sensitivity of the ARPEGE-Climat atmospheric model to some of its internal parameters. **O. Audouin**
13:00-14:00	**Lunch break & end of the meeting**		