# Monday

+All times are BST (UTC +1)

	Parallel Session 1	
	IS Natural hazards and impacts	
	Organizer/chair: Strokorb, K.	
10.00-10.25	Ekstrom M. Capturing, elements of weather-related risks in a climate change context	10.00-10
10.25-10.50	Westra, S. Implications of bottom-up framing for climate impact assessments	10.25-10
10.50-11.15	Fowler. H. Using spatial extreme statistics to provide climate uplifts for flood risk management	10.50-11
11.20-11.30	Break	
	IS Spatial extremes Organizer/chair: Oesting, M.	
11.30-11.55	Opitz, T.	11.30–11
	stochastic geometry of Gaussian mixture processes and spatial extreme-value analysis	11.50-12

11 55-12 20	de Fondeville, R.
11.55-12.20	Sub-asymptotic models for functional peaks-over-threshold modelling
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12 20-12 45	waasworth, J.
12.20-12.45	Extremal dependence properties and representations for spatial extremes
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13.00-16.00 Social and networking

	IS Climate extremes Organizer/chair: Zscheischler, J.
16 00-16 25	Brunner, M.
10.00 10.22	Time scale determines the spatial patterns and extents of compound hot-dry events an assessment using a multi-site multi-variable weather generator
16.25-16.50	Raymond, C. Sharpening our view of extreme heat
16 50-17 19	Fischer, E.

16.50-17.15 Increasing probability of record-shattering climate extremes

17.20-17.30 Break

# IS Graphical modelling<br/>Organizer/chair: Engelke, S.17.3017.30-17.55Tran, N.<br/>Causal inference for extremes on river networks17.3017.55-18.20Deuber. D.<br/>Extremal quantile treatment effects for heavy-tailed distributions<br/>Extremal quantile treatment effects for heavy-tailed distributions<br/>Graphical models for infinite measures with applications to extremes and Lévy process18.30

	Parallel Session 2 IS Extremes of stochastic processes (ambit, Gaussian)	Parallel Session 3 CS Applications of extremes (I)
	Organizer: Hashorva, E.; Chair: Dyszewski, P.	Chair: Bücher, A.
0.25	Rolski, T. Multivariate extremes for correlated Brownian motions with drift	Maller, R. Universally limited lifespans despite individual heterogeneity Yang, S.F. The PCA-based control charts for monitoring multiple-stream processes
0.50	Bisewski, K. Bounds on the expected supremum of fractional Brownian motion with drift	Silva, D. Modelling the athletics long jump performance—an approach with the largest order statistics
1.15	Debicki, K. Extremes of vector-valued Gaussian processes	Smith, R. Extreme value theory and chess ratings

	CS Machine Learning for extremes	Best student paper (I)
	Chair: Segers, J.	Chair: Naveau, P.
11.30-11.50	Robert. C. Hill random forests	Brück, F. Exchangeable min-id sequences: characterization, exponent measures and non-decreasing id-processes
11.50-12.10	Chen, L. Distributed inference for extreme value index	Neblung, S. Cluster based estimator for the spectral tail process
12.10-12.30	Zhou, C. Distributed inference for tail empirical and quantile processes	Buriticá, G. Modelling clusters of extreme events over short periods
12.30-12.50	Allouche, M. On the approximation of extreme quantiles with ReLU neural networks	

	CS Inference and robust extremes Chair: Markovich, N.	CS Multivariate extremes Chair: Huser, R.
16.00-16.20	Goegebeur, Y. Robust estimation of the conditional stable tail dependence function	Beck, N. Semi-parametric estimation of multivariate extreme expectiles
16.20-16.40	Oorschot, J. Extreme U-statistics	Barltrop, C. Novel diagnostic and uncertainty characterisation tools for multivariate return curves
16.40-17.00	Ben-Hamou, A. Non-asymptotic bounds for probability weighted moment estimators	Guerrero, M. Conex-Connect: learning patterns in extremal brain connectivity from multi-channel
17.00–17.20	Jalbert, J. Extended generalized Pareto for subasymptotic tail analysis with an application to beatwave intensities	

	CS Climate extremes (I)	Best student paper (II)
	Chair: Rootzén, H.	Chair: Meyer, N.
47.00 47.50	Koh, J.	Birghila, C.
17.50-17.50	Spatiotemporal wildfire modelling through point processes with moderate and extreme marks	Distributionally robust tail bounds based on Wasserstein distance and f-divergence
17 50-18 10	Richards, J.	Kartsioukas, R.
17.50-18.10	Modelling the extremes of spatial aggregates of precipitation using conditional methods	On the rate of concentration of maxima in
18 10-18 30	Ulrich, J.	Planinić, H.
10.10-10.50	Modelling seasonal variations of extreme rainfall on different time scales in Germany	Palm theory for extremes of stationary regularly varying time series and random fields
18.30–18.50	Olafsdottir, H. K.	
	Frequency increase in extreme rainfall events in the Northeastern USA with stable intensity distribution	

# Tuesday

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	Parallel Session 1		Parallel Session 2	Parallel Session 3
	IS Machine learning (theory, inc. tail-adapted loss functions, concentration inequalities) Organizer/chair: Clemencon, S.		IS Public health, epidemiology, life sciences and life lengths Organizer/chair: Thomas, M.	CS Climate Extremes (II) Chair: de Fondeville, R.
10.00-10.25	Joly, E. Robust estimation of matrices and the consequences in matrix completion	10.00-10.25	<i>Mhalla, L.</i> Discrete dependent extremes	Huser, R. Modelling and estimation of extreme Red Sea surface temperature hotspots Choi, W. Marine heatwaves in Korean waters: seasonal and regional differences
10.25-10.50	Bertail, P. Concentration inequalities for NA random variables, applications to survey sampling	10.25-10.50	Cheysson, F. Evolution of groups at high risk of death from COVID-19 using hospital data	Bhattacharya, S. Extremes of the spatial impact of heat waves
10.50-11.15	Lerasle, M. Robust statistical learning	10.50-11.15	Rootzén, R. Real-time prediction of severe influenza epidemics using multivariate generalized Pareto modelling	Castillo-Mateo, J. Nonparametric changepoint detection tests based on the breaking of records
11.20-11.30 Break				
	IS Extremes & random structures (branching and dynamics, geometry) Organizer/chair: Roy, P.		CS Spatial extremes (I) Chair: Padoan, S.	CS Regression techniques (I) Chair: Zhou, C.
11 30-11 55	5 Dyszewski, P. 11.30 K-regular self-similar fragmentation process 11.50	11.30–11.50	Zhong, P. Modelling and exact simulation of non-stationary temperature maxima with max-infinitely divisible process	Bousebata, M. Extreme partial least-squares regression
11.50 11.5.		11.50-12.10	Hazra, A. A sparse Gaussian scale mixture process for modelling short-range extremal dependence and long-range in	Stupfler, G. Extremile regression
11.55-12.20	Yang, H. Scaling limits of branching random walks and branching stable processes	12.10-12.30	Rønn-Nielsen, A. Extreme value theory for spatial random fields - with application to a Lévy-driven field	Trapin, L. Modelling panels of extremes
12.20-12.45	Ghosh, A. Extreme Values in negative curvature	12.30-12.50	Vandeskog, S. M. Modelling extreme sub-daily precipitation with the blended generalised extreme value distribution	Leng, X. Extreme conditional quantiles for papel data model with individual effects

## 14.00-16.00 Social and networking

13.00-14.00 Poster blitz\*

	IS Causal inference Organizer/chair: Neslehova, J.		CS Bayesian extremes Chair: Shaby, B.	Best student paper (III) Chair: Ferreira, A.
16.00-16.25	Gnecco, N. Causal discovery in heavy-tailed models	16.00-16.20	Zhang, L. Spatial scale-aware tail dependence modelling for high-dimensional spatial extremes	Terefe, E. M. Extremal random forests
		16.20-16.40	Rizzelli, S. Consistency of Bayesian and empirical Bayesian inference on multivariate max-stable distributions	Asenova, S. Extremes of Markov random fields on block graphs
16.25-16.50	Peters, J. Can causal discovery benefit from extreme values?	16.40-17.00	Ramirez, K. V. Bayesian semiparametric modelling of jointly heteroscedastic extremes	Jalalzai, H. Feature clustering for support identification in extreme regions
16.50-17.15	Papadogeorgou, G. Causal inference with spatio-temporal data	17.00-17.20	Yadav, R. A flexible Bayesian framework for modelling extreme spatial threshold exceedances using product	Pasche, O. Causal modelling of heavy-tailed variables and confounders
17.20-17.30	Break			

IS Multivariate extremes (sparsity, high-dimensional, copulas, anomaly detection)		CS Applications of extremes (II)	CS Extremes of stochastic processes (I)
Organizer/chair: Sabourin, A		Chair: Castro, D.	Chair: Kulik, R.
Engelke, S.	17.30–17.50	Pipiras, V. Multifidelity Monte Carlo estimation for extremes	Ji, L. Extrema of multi-dimensional Gaussian processes over random intervals
Extremal graphical lasso and high-dimensional extremes	17.50-18.10	Shaby, B. Modelling first arrival of migratory birds using a hierarchical max-infinitely divisible process	Krystecki, K. Two-dimensional ruin for Brownian motions with drift dependent on initial capital
Einmahl, J.	18.10-18.30	Patel, L.	Otto, M.
Empirical tail copulas for functional data		Statistical learning of extreme spatio-temporal events with an application to global terror attacks	Poisson approximation in the Poisson hyperplane mosaic
Nolan, J.	18.30-18.50	Wang, T.	Owada, T.
Robust Sparse Reconstruction		Reciprocity and large degree dependence in a preferential attachment model	Convergence of persistence diagram in the subcritical regime

*Poster blitz	Mashabe, B.
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	Silva Lomba, J.
	Krali, M.
	Healy, D.
	Israelsson, J.
	Zeder, J.
	Vandeskog, S. M.

17.55-18.20 Empirical tail copulas for functional data 18.20-18.45 Nolan, J. Robust Sparse Reconstruction

17.30-17.55 Engelke, S. Extremal graphical lasso and high-dimensional extremes

# Wednesday

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	Plenary Lecture I Chair: Naveau, P.
13.00-13.45	Hegerl, G. C. Determining causes for the changing probability of weather and climate extremes
13.45-13.55	Q & A
13.55-14.00	Break
	Plenary Lecture II Chair: Naveau, P.
14:00–14:45	Cooley, D. Climatic extremes: current statistical challenges
14.45-14.55	Q & A
14.55-15.00	Break
15:00:16:00	Panel Discussion Chair: Kiriliouk, A.
	Peters, J. Sabourin, A. Stoev, S. Danielsson, J. Zscheischler, J. Kjeldsen, T. Neves, C.

# Thursday

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	Parallel Session 1 IS Extremes of energy systems		Parallel Session 2 CS Flood risk	Parallel Session 3 CS Causal inference	
	Organizer/chair: Neves, C.		Chair: Fougeres, A-L.	Chair: Klueppelberg, C.	
10.00-10.25	Browell, J.		D'Arcy, E. Extreme sea level estimation: accounting for seasonality	Buck, J. Properties and Consistency of QTree in Max-Linear Models Under Observational Noise	
	Probabilistic forecasting of regional net-load with conditional extremes	10.20-10.40	Rohrbeck, C. Simulating flood event sets using extremal principal components	Zeder, J. The value of regularisation and model robustness in the context of climate extremes	
10.25-10.50	Brayshaw, D. Weather and climate risk in power systems with renewables	10.40-11.00	Mubarrok, S. Annual maximum precipitation in Indonesia linked to climate variability: extreme value analysis	Bodik, J. Detection of causality in time series using extreme values	
10.50-11.15	Li, Y. The use of extreme value theory for forecasting long-term substation maximum elect	11.00-11.20	Legrand, J. Evaluation of binary classifiers for extremes	Ji, J. Autoregressive conditional accelerated Fréchet model for decoupling systemic risk into endogenous and	
11.20-11.30 Break					
	IS Time series		CS Prediction and validation for extremes	CS Insurance	

	Organizer/chair: Bücher, A.		Organizer: Dombry, C.
11.30-11.55	Drees, H.		Modeste, T. Scoring and validation of dynamic probability forecast
	Bootstrap for block-based extreme value statistics	11.50-12.10	Henzi, A. Valid sequential inference on probability forecast performance
11.55-12.20	Wintenberger, O. Threshold selection for cluster inference based on large deviation principles	12.10-12.30	Bobbia, B. Estimation of extreme conditional quantiles with coupling method
12.20-12.45	Oesting, M. Long range dependence in the tails	12.30-12.50	Baeriswyl, F. Multivariate regular variation in marked Hawkes processes

## 13.00-16.00 Social and networking

	IS Long memory processes and non-standard EVT	IS Inferential issues	IS Sparsity in high-dimensional extremes
	Organizer/chair: Owada, T.	Organizer/chair: Wadsworth, J. L.	Organizer/chair: Ivanovs, J.
16.00–16.25	Bai, S.	Belzile, L.	Volgushev, S.
	New representations of Hermite processes	Informative selection mechanisms for extreme value analyses	Tree structure learning for extremes
16.25–16.50	Hirsch, C.	Risser, M.	Fomichov, V.
	Extremal lifetimes of persistent loops and holes	Detecting changes in daily precipitation extremes over the contiguous United States	Spherical clustering in detection of groups of concomitant extremes
16.50–17.15	Thomas, A. M.	Aulbach, S.	Meyer, N.
	Functional strong laws of large numbers for Euler characteristic processes of extreme.	Exceedance probability estimation: some experience on bias correction and confidence intervals	Multivariate sparse clustering for extremes
			CS Spatial Extremes (II) Chair: Prosdocimi, I.
16.00–16.20			Zhang, Z. Modelling spatial-temporal extremes using normal mean-variance mixtures
16.20–16.40			Chautru, E. Continuous simulation of storm processes

- 16.20-16.40
- 16.40-17.00
- 17.00-17.20

## 17.20-17.30 Break

	IS Forecasting, metrics, evaluations and scoring of extremes Organizer/chair: Ziegel, J.	
17.30-17.55	Dombry, C.	17.30–17.
	Gradient boosting for extreme quantile regression	17.50–18.
17.55-18.20	Brehmer, J. Using scoring functions to evaluate point process forecasts	18.10–18.
18.20-18.45	Fougères AL. Scoring probabilistic forecasts with a focus on extremes	18.30–18.

	CS Dependence modelling Chair: Nolan, J.	CS Regression techniques (II) Chair: Girard, S.
0–17.50	Tao, S. On modelling tail dependence via t-copula	Kumukova, A. Regression-type analysis for block maxima on block maxima
0–18.10	Kadhem, S. H. Bi-factor and second-order copula models for item response data	Gheno, G. A new link function for frequentist beta regression
0–18.30	Simpson, E. A geometric investigation into the tail dependence of vine copulas	Lee, J. Transformed-linear combination of regularly varying random variables and linear prediction for extremes
0–18.50	Tendijck, S. Modelling the extremes of bivariate mixture distributions with application to oceanographic data	Alabdulathem, A. Tail index regression-adjusted functional covariate

Demangeot, M.

Szemkus, S.

Chair: Einmahl , J.

Extreme value estimation of the conditional risk premium in reinsurance

A Weissman-type estimator of the conditional marginal expected shortfall

Estimation of the extremal coefficient function based on a single observation

Extremal dependence as given by the tail pairwise dependence matrix in precipitation ....

\*Parallel Session 4

A 2 × 2 random switching model and its dual risk model

On maximal claim size for marked Hawkes processes

Guillou, A.

Behme, A.

Žugec, P.

Ho, N.

Friday

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	Parallel Session 1		Parallel Se
	IS Insurance Organizer/chair: Stupfler, G.		Data chall Organizer/
10.00.10.25	Bladt, M.	10.00-10.20	<i>Makowski,</i> Random fo
10.00-10.25	Phase-type distributions for Insurance pricing	10.20-10.40	Cisneros, D Predicting
10.25-10.50	Usseglio-Carleve, A. Extreme expectile regression - Theory and applications	10.40-11.00	<i>Koh, J.</i> Gradient b
10.50-11.15	Padoan, S. Joint inference on extreme expectiles for multivariate heavy-tailed distributions	11.00-11.20	Vlah, D. BlackBox: /
11.20-11.30	Break		
	IS Networks Organizer/chair: Janssen, A.		CS Univaria Chair: Guil
11 30-11 55	Fasen-Hartmann, V.	11.30-11.50	Gomes, M. A few prog
11.50 11.55	Tail probabilities of random linear functions of regularly varying random vectors	11.50-12.10	El Methni, A bias-redu
11.55-12.20	van der Hoorn, P. Tails in networks: a tale of finding the right slope	12.10-12.30	Henriques- Cox estima
12.20-12.45	Schulte, M. Large degrees in scale-free inhomogeneous random graphs	12.30-12.50	Caeiro, F. A comparis
13.00-14.00	Social and networking		
14.00-15.00	Awards ceremony Chair: Mikosch, T.		
15.00-16.00	Social and networking		
	IS Rare event simulation Organizer/chair: Hult, H.		IS Asympto Organizer/
16.00-16.25	Favero, F. Asymptotic analysis of sampling probabilities and backward simulation algorithms for coalescent models	16.00-16.25	Lalancette, Concentra to structu
16.25-16.50	Nyquist, P. A large deviations analysis of piecewise deterministic Markov processes for MCMC	16.25-16.50	Bücher, A. On the disj
16.50-17.15	Gobet, E. Transform MCMC schemes for sampling intractable factor copula models	16.50-17.15	Kulik, R. Estimation

	Parallel Session 2
	Data challenge Organizer/chair: Opitz, T.
-10.20	Makowski, D. Random forest classification with the R package ranger: interest and limitations
-10.40	Cisneros, D. Predicting extreme wildfire frequencies and sizes using statistical and machine learning
-11.00	Koh, J. Gradient boosting with extreme-value theory for fire count and size predictions
-11.20	Vlah, D. BlackBox: A probabilistic deep learning model for predicting missing spatio-temporal data
	CS Univariate tail estimation
	Chair: Guillou, A.

0–11.50	Gomes, M. I. A few progresses in statistics of extremes through the use of generalized means
0–12.10	El Methni, J. A bias-reduced version of the Weissman extreme quantile estimator
0–12.30	Henriques-Rodrigues, L. Cox estimation of parameters of extreme events
0–12.50	Caeiro, F. A comparison of generalized and extended Hill estimators

Parallel Session 3
CS Graphical models
Chair: Fraga Alves, M. I.
Hentschel, M.
Statistical inference for decomposable Hüsler-Reiss graphical models
Röttger, F.
Total positivity in graphical extremes
Markovich, N.
Tails and clusters of random sums and maxima and their relation to graphical models

CS Extremes of stochastic processes (II) Chair: Debicki, K.	
Kępczyński, K. Running supremum of Brownian motion in dimension 2: exact and asymptotic results	
Heiny, J. Extremes of interpoint distances of high-dimensional random vectors	
Ferreira, A. Convergence of extreme values of Poisson point processes at small times	
Morozova, E. Extrama value analysis for mixture models with boow tailed impurity	

	IS Asymptotic statistics for extremes (inc. empirical processes) Organizer/chair: Volgushev, S.	
5.25	Lalancette, M. Concentration and asymptotic normality of the empirical variogram, with application to structure learning	
6.50	Bücher, A. On the disjoint and sliding block maxima method for piecewise stationary time series	
7.15	Kulik, R. Estimation of cluster functionals for heavy tailed time series	

	CS Time series Chair: Basrak, B.
16.00-16.20	Mhatre, N. Transformed-linear models for time series extremes
16.20-16.40	Wang, Y. Long-range clustering for extremes
16.40-17.00	Chen, Z. Extremes of subexponential processes under moderate long memory
17.00-17.20	Rodionov, I. Procise large deviations for m dependent subexpenential converses