Peng Zhong

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Education

King Abdullah University of Scicence and Technology — Saudi Arabia
PhD in Statistics — 1, 2019 – Present
Advisor: Prof. Raphaël Huser

King Abdullah University of Scicence and Technology — Saudi Arabia
MS in Statistics — 8, 2017 – 12, 2018
Advisor: Prof. Raphaël Huser

Southern University of Science and Technology — Shenzhen, China
BA in Financial Mathematics — 8, 2013 – 6, 2017

Honors & Scholarships

National Encouragement Scholarship (SUSTech) — 2015
Establishment of SUSTech Scholarship (SUSTech) — 2013

Publications

[1] **Peng Zhong**, Raphaël Huser, and Thomas Opitz, **Modeling non-stationary temperature maxima based on extremal dependence changing with event magnitude**, *Annals of Applied Statistics* **16**, 272-299, 2022

[2] **Peng Zhong**, Raphaël Huser, and Thomas Opitz, **Exact simulation of max-infinitely divisible processes**, *accepted in Econometrics and Statistics*, 2022

[3] Zhongwei Zhang, Elias Krainski, **Peng Zhong**, Håvard Rue, and Raphaël Huser, **Joint modeling and prediction of massive spatio-temporal wildfire count and burnt area data with the INLA-SPDE approach**, *Submitted to Extremes*

[4] Raphaël Huser, Michael Stein, and **Peng Zhong**, **Vecchia likelihood approximation for accurate and fast inference in intractable spatial extremes models**, *Submitted to Journal of the Royal Statistical Society: Series B*

[5] **Peng Zhong**, Manuela Brunner, Raphaël Huser, and Thomas Opitz, **Are spatial precipitation extremes becoming more intense, wider, or both? An extreme-value statistics perspective**, *In preparation*

[6] Yan Gong, **Peng Zhong**, Raphaël Huser, and Thomas Opitz, **Partial tail correlation coefficient**, *In preparation*

Teaching Experience

Teaching Assistant (STAT 250: Stochastic Processes), CEMSE (KAUST) — Fall, 2020
Grading homework and exams; Giving tutorial; Q & A;

Teaching Assistant (Real Analysis), Mathematics (SUSTech) — Spring 2017
Grading homework and exams; Q & A;

Industry Experience

CSMAR Database — Shenzhen, China
Data Analyst (Intern) — Summer 2016
Data analysis; Data scraping; Present and review literature in Finance;

Talks & Posters

Talk: Modeling non-stationary temperature maxima based on extremal dependence changing with event magnitude
Extreme Value Analysis 2021 (Virtual), UK — 6, 2021

Poster: Exact simulation of max-infinitely divisible processes
13th International Workshop on Rare-Event Simulation (Virtual), Paris, France — 5, 2021

Talk: Exact simulation of max-infinitely divisible processes
Virtual workshop on "Statistical Estimation and Detection of Extreme Hot Spots, with Environmental and Ecological Applications", KAUST, Saudi Arabia — 2, 2021

Talk: Modeling non-stationary temperature maxima based on extremal dependence changing with event magnitude

Virtual workshop on "Statistical Estimation and Detection of Extreme Hot Spots, with Environmental and Ecological Applications", KAUST, Saudi Arabia 2, 2021

Contributed Talk: Modeling non-stationary temperature extremes with level-dependent extremal dependence

Joint Statistical Meetings (Virtual), USA 8, 2020

Poster: Modeling spatial extremes with max-infinitely divisible models level-dependent extremal dependence

Joint Statistical Meetings, Denver, Colorado, USA 7, 2019

Selected Courses

Stochastic Processes; Linear Models; Statistics of Extremes; Nonparametric Statistics; Time Series; Bayesian Statistics; Computational Statistics; Data Mining; Big Data Optimization; Advanced Probability; Advanced Simulation;

Skills

Programming

R, C++, Python, Pytorch, Shell, Slurm, Singularity.

Other

Latex, Markdown, MS Office.

Languages

Mandarin, English

Professional Services

Journal of Multivariate Analysis Reviewer