

# Peng Zhong

King Abdullah University of Science and Technology (KAUST)  
Computer, Electrical, and Mathematical Sciences and Engineering (CEMSE) Division, Statistics program  
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## EDUCATION

King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, 2019-2022

Ph.D. in Statistics,

*Dissertation Title:* [Modeling and Simulation of Spatial Extremes Based on Max-Infininitely Divisible and Related Processes](#)

Advisor: Prof. [Raphaël Huser](#)

King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, 2017-2018

MSc in Statistics,

Advisor: Prof. Raphaël Huser

Southern University of Science and Technology (SUSTech, 南方科技大学), Shenzhen, China, 2013-2017

BSc in Financial Mathematics

## HONORS

Dean's List Award, CEMSE, KAUST, 2022

National Encouragement Scholarship, SUSTech, 2015

Establishment of SUSTech Scholarship, SUSTech, 2013

## INDUSTRY EXPERIENCE

CSMAR DATA TECHNOLOGY, Data Analyst, Summer 2016

Data analysis; Data scraping; Present and review literature in Finance;

## TEACHING EXPERIENCE

Teaching Assistant (STAT 250: Stochastic Processes), CEMSE (KAUST), Fall 2020

Grading homework and exams; Giving tutorials; Q & A

Teaching Assistant (Real Analysis), Mathematics (SUSTech), Spring 2017

Grading homework and exams; Q & A;

## TALKS & POSTERS

**Talk:** Are spatial precipitation extremes becoming more intense, wider, or both? An extreme-value statistics perspective.

CRG Workshop (Virtual), Geneva, Switzerland, May 2022

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

Extreme Value Analysis 2021 (Virtual), University of Edinburgh, UK, June 2021

**Poster:** Exact simulation of max-infininitely divisible processes

13th International Workshop on Rare-Event Simulation (Virtual), Paris, France, May 2021

**Talk:** Exact simulation of max-infininitely divisible processes

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

**Talk:** Modeling non-stationary temperature extremes with level-dependent extremal dependence  
Joint Statistical Meetings (Virtual), USA, August 2020

**Poster:** Modeling spatial extremes with max-infinitely divisible models level-dependent extremal dependence  
Joint Statistical Meetings, Denver, Colorado, USA, July 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, Keras, and Singularity

**Other:** Latex, Markdown, and MS Office

**Languages:** English and Chinese

## PROFESSIONAL SERVICES

**Reviewer:** Journal of Multivariate Analysis (1)

## PUBLICATIONS

### Peer-Reviewed Papers:

- [1] **Zhong P.**, Huser R., and Opitz T. (2022), [Modeling non-stationary temperature maxima based on extremal dependence changing with event magnitude](#), Annals of Applied Statistics, 16, 272-299
- [2] **Zhong P.**, Huser R., and Opitz T. (2022), [Exact simulation of max-infinitely divisible processes](#), Econometrics and Statistics, to appear

### Papers Under Review:

- [1] Zhang Z., Krainski E., **Zhong P.**, Rue H., and Huser R. (2022+), [Joint modeling and prediction of massive spatio-temporal wildfire count and burnt area data with the INLA-SPDE approach](#), Submitted to Extremes
- [2] Huser R., Stein M., **Zhong P.** (2022+), [Vecchia likelihood approximation for accurate and fast inference in intractable spatial extremes models](#), Submitted to the Journal of American Statistical Association, Theory and Methods

### Papers Under Preparation:

- [1] **Zhong P.**, Brunner M., Huser R., and Opitz T. (2022+), Are spatial precipitation extremes becoming more intense, wider, or both? An extreme-value statistics perspective
- [2] Gong Y., **Zhong P.**, Huser R., and Opitz T. (2022+), Partial tail correlation coefficient