Jiajie Kong

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RESEARCH INTERESTS Count Time Series, Censored Time Series, Bayesian Inference, Bayesian Optimization, Sampling Techniques (MCMC and SIS Methods), Gaussian Processes, Machine Learning, Causal Inference.

ACADEMIC APPOINTMENT University of California, Berkeley, Berkeley, California USA

Oct 2023 - Present

Postdoctoral Scholar, Environmental Statistics

Supervisors: Timothy M Bowles and Perry de Valpine

Research Project: Risk Model

University of California, Santa Cruz, Santa Cruz, California USA

Sep 2021 - Sep 2023

Graduate Research Assistant, Statistics Advisor: Robert Lund & Herbie Lee

EDUCATION

University of California, Santa Cruz, Santa Cruz, California USA

Sep 2023

Ph.D., Statistics Advisor: Robert Lund

Dissertation: Some Count Time Series Results

California State University, Northridge, Northridge, California USA

Aug 2016

M.S., Mathematics

Advisor: Majid Mojirsheibani

Thesis Topic: An Asymptotically Optimal Kernel Combined Classifier

University of New Haven, West Haven, Connecticut USA

Aug 2011

M.B.A., Finance

Guangdong University of Business Studies, Guangzhou, China

Jun 2009

B.S., Economics

Publications

Jia, Y., Lund, R., Kong, J., Dyer, J., Woody, J. and Marron, J.S. (2023), <u>Trends in Northern Hemispheric Snow Presence</u>. *Journal of Hydrometeorology*, Vol 24, Num. 6, pp. 1137–1154

Kong, J. and Lund, R. (2021), <u>Seasonal Count Time Series</u>, *Journal of Time Series Analysis*, Vol 44, pp. 93-124.

Mojirsheibani, M. and Kong, J. (2016), An Asymptotically Optimal Kernel Combined Classifier, Statistics and Probability Letters, Vol 119, pp. 91-100.

Submitted Papers Kong, J., Pourmohamad, T. and Lee, H. (2023), <u>An Acquisition Function Family for Bayesian Optimization</u>. (Submitted to *Operations Research Forum*)

Kong, J. and Lund, R. (2023). <u>Poisson Count Time Series</u>. (Submitted to *Journal of Time Series Analysis*)

Grant, J., Kong, J., Liu, X., Lund, R., and Woody, J. (2023), <u>Lindley Processes with Correlated Changes</u>. (Under major revision for *Journal for Statistical Computation and Simulation*)

Working Papers Kechagias, S., **Kong, J.**, Livsey, J., Lund, R. and Pipiras, V. (2024+). <u>Copcount: An R Package for Count Time Series with Specified Marginal Distributions</u>, for *Journal of Statistical Software*.

Kong, J., Woody, J. and Lund, R. (2024+). Particle Filtering Method for Generalized Censored <u>Time Series</u>, for Journal of the American Statistical Association.

INVITED TALK

(2023) Department of Mathematics, University of Nebraska-Lincoln, Lincoln, NE

(2016) Pacific Conference on Statistical Computing & Data Mining, Palm Spring, CA.

Courses

Pure Mathematics: Complex Analysis, Real Analysis, Functional Analysis, Topology, Abstract Algebra, Number Theory, Linear Algebra.

Statistics: Probability Theory, Mathematical Statistics, Statistical Inference, Stochastic Processes, Stochastic Calculus, Bayesian Statistics and Modeling, Regression Analysis, Generalized Linear Models, Multivariate Analysis, Time Series Analysis, Spatial Statistics, Survival Analysis, (Bayesian) Nonparametric Statistics, Bootstrapping, Machine Learning, Decision Theory.

Applied Mathematics: Numerical Analysis, Numerical Linear Algebra, Numerical Optimization.

SKILLS

- Statistical Packages: R, Python and SAS.
- Tools: Linux, Git, SQL and LATEX.

Memberships

- Member of American Statistical Association since 2013.
- Member of American Mathematical Society since 2017.

AWARDS

- Regent's Fellowship, UCSC (2017)
- Outstanding Graduate Student, CSUN Mathematics Department (2016)
- Graduated with Sigma Beta Delta Honors, UNH (2011)

Journal Refereing

• A Journal of Theoretical and Applied Statistics.

TEACHING

University of California, Santa Cruz, Department of Statistics

Teaching Assistant

Sep 2017 - Present

- STAT 5 Statistics Fall 2017, Winter 2018, Spring 2020, Summer 2020
- STAT 7 Statistical Methods for the Biological, Environmental, and Health Sciences Laboratory Winter 2019, Spring 2019, Summer 2019, Winter 2020, Fall 2020, Winter 2021
- STAT 80A Game Theory Fall 2018, Fall 2019
- STAT 131 Introduction to Probability Summer 2018, Spring 2021, Fall 2021

California State University, Northridge, Department of Mathematics

Instructor

Sep 2014 - June 2016

• MATH 131 Mathematical Ideas Fall 2014, Fall 2015, Spring 2016

Teaching Assistant

- MATH 102L Pre-Calculus Fall 2014, Spring 2015, Fall 2015
- MATH 103L Mathematical Methods for Business Fall 2014, Spring 2014, Fall 2015
- MATH 150B Calculus II Spring 2015

RECOMMENDATION Robert Lund, Professor of Statistics.

University of California, Santa Cruz

Email: rolund@ucsc.edu, Phone number: (831) 459-5158

Herbie Lee, Professor of Statistics.

University of California, Santa Cruz

Email: herbie@ucsc.edu, Phone number: (831) 459-1655

Juhee Lee, Associate Professor of Statistics.

University of California, Santa Cruz

Email: juheelee@soe.ucsc.edu, Phone number: (831) 459-5311

Majid Mojirsheibani, Professor of Mathematics.

California State University, Northridge

Email: majid.mojirsheibani@csun.edu, Phone number: (818) 677-7814