RUIMAN ZHONG

RESEARCH EXPERIENCE

King Abdullah University of Science and Technology (KAUST)

2021 - Present

PhD Research Department of Statistics

- Advanced spatial data fusion with Stochastic Partial Differential Equations Using R and INLA
- Spatial modeling with preferential sampled data ((geostatistical, areal, or multiple spatial data source)) using INLA-SPDE.
- Ensemble spatial modeling using R

RELEVANT RESEARCH SKILLS

- Advanced spatial modeling with Stochastic Partial Differential Equations Using R and INLA
- Bayesian hierarchical modeling using R and STAN
- Machine learning programming using Python
- Basic SAS and Spark coding skill

EDUCATION

King Abdullah University of Science and Technology (KAUST), Jeddah, Present	Saudi Arabia 2021 –
Ph.D student in Statistics (STAT), expected Dec 2024	
Katholieke Universiteit Leuven, Leuven, Belgium Master in Stiatistics and Data Science	2019 - 2021
Sun-Yat Sen University , Guangzhou, China <i>B.S.</i> in Mathematics	2013 - 2017
INTERNSHIP	
ByteDance (Shenzhen)	2019.06-2019.09

Data analyst

• Created data visualizations and reports to assist in decision-making processes, enabling more informed development choices.

Panzhihua University Affiliated Hospital

2017.12 - 2018.05

Statistician assistant

• Statistical Analysis:

Assisted biostatisticians in conducting statistical analyses to evaluate the efficacy of various lung cancer treatment modalities. Utilized statistical software (e.g., R, SAS) to perform hypothesis testing, survival analysis, and regression modeling to assess treatment outcomes.

PUBLICATION

Zhong, R and P Moraga (July 2023). "Bayesian Hierarchical Models for the Combination of Spatially Misaligned Data: A Comparison of Melding and Downscaler Approaches Using INLA and SPDE". In: Journal of Agricultural, Biological and Environmental Statistics. issn: 1085-7117. doi:10.1007/s13253-023-00559-w. Zhong, R, A Amaral, and P Moraga. "Spatial data fusion adjusting for preferential sampling using INLA and SPDE" *In Peer-Review* A Amaral, E Krainski, Zhong R, and P Moraga. "Model-based Geostatistics under Spatially Varying Preferential Sampling" *Accepted by Journal of Agricultural, Biological and Environmental Statistics*

CONFERENCE

- Zhong, R and P Moraga. An ensemble-based approach for the analysis of spatially misaligned data. METMA X, 259
- Zhong, R and P Moraga. An ensemble-based approach for the analysis of spatially misaligned data. Geoenv, 2022
- Zhong, R and P Moraga. A Comparison of Melding and Downscaler Approaches Using INLA and SPDE. RSS conference 2022
- Zhong, R, A Amaral, and P Moraga. Spatial data fusion adjusting for preferential sampling using INLA and SPDE. Joint Statistics Meeting 2023
- Invited speaker: Spatial data fusion adjusting for preferential sampling using INLA and SPDE. ICSDS 2023