Statistics Former Student Network (SFSN)

Texas A&M University Webinar Series



BO LI

Professor and Chair, Department of Statistics Richard and Margaret Romano Professorial Scholar University of Illinois Urbana-Champaign

STATISTICS METHODS FOR CLIMATE CHANGE AND SUSTAINABILITY



ABSTRACT:

I will first give a brief overview of my recent research and then use three current projects to showcase how statistics can help answer questions involving climate change and sustainability. The first is integrating pollen, genetic and species distribution model data to recover glacial refugia in the Alaska area, and the second regards county-level crop yield prediction using functional covariates such as daily max/min temperature series. The last example is to develop a new method to estimate asynchronous changepoint for spatially functional time series. I will also show how this new method can be used to analyze climate data and daily covid cases. All these examples illustrate how the model respects data heterogeneity and exploits spatial correlation to improve statistical inference.

BIO: Dr. Bo Li is the Professor and Chair of the Department of Statistics at the University of Illinois Urbana-Champaign. She is also a Richard and Margaret Romano Professorial Scholar. She received her PhD in Statistics from Texas A&M University in 2006 under the advisement of Michael Sherman and Raymond Carroll, and then became a Post-Doc at National Center for Atmospheric Research before joining Purdue as an Assistant Professor in 2008. In 2013 she moved to the University of Illinois Urbana-Champaign. Dr. Li's research mainly focuses on spatial and spatiotemporal statistics and environmental statistics concerning problems in climatology, atmospheric sciences, public health, forestry and agriculture. Dr. Li was the recipient of the Young Investigator Award and the Distinguished Achievement Award from the ASA Section on Statistics and the Environment, and is a Fellow of the American Statistical Association. She was also the 2020 H. O. Hartley Award winner from Texas A&M University.

Tuesday, October 25, 2022 11:00 AM - 12:00 PM, CST

Online webinar only. No meeting room.

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