

THE UNIVERSITY OF GEORGIA
DEPARTMENT OF STATISTICS

Colloquium Series

4/11/2024

4:00 PM, Room 204, Caldwell Building

He Tang

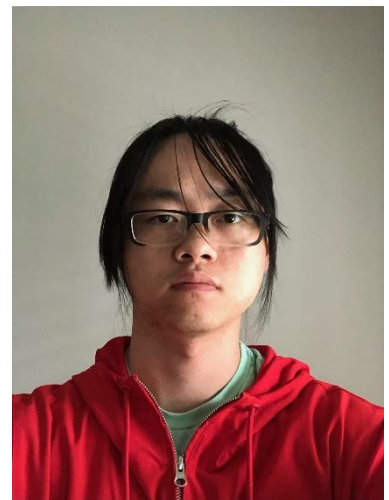
Graduate Teaching Assistant Franklin-Statistics

On estimation and order selection for multivariate extremes via clustering

We investigate the estimation of multivariate extreme models with a discrete spectral measure using clustering techniques. The primary innovation involves devising a method for selecting the appropriate order that not only consistently identifies the true order in theory but also has a straightforward and easy implementation in practice. Specifically, we introduce an extra penalty term to the well-known simplified average silhouette width, which penalizes small cluster sizes and minimal dissimilarities between cluster centers. Consequently, we provide a consistent method for order of a max-linear factor model, where a typical information-based approach is not viable due to the absence of likelihood.

About the Speaker

I am currently pursuing a Ph.D. in the Department of Statistics at the University of Georgia under the supervision of Dr. Shuyang Bai. My research focuses on probability theory, extreme value theory, and related statistical topics.



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