

ACMS Statistics Seminar

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Tuesday, September 10
154 Hurley Hall
3:30– 4:30 PM



Statistical Models with the Applications in Big Data

My research develops statistical methodologies concerning big data problems including spatio-temporal trajectories, functional time series observed on a dense and fixed grid of time, and small area estimation problems. I have analyzed real stochastic phenomena including the T cell trajectories, functional Magnetic Resonance Imaging (fMRI) dataset, Electroencephalography (EEG) data, and much more, I am squeezing myself towards the cancer data! The statistical models for the stochastic behaviour of the variable of interest that I work with have been proposed under some distributional assumptions. Complicated statistical models, homogenous and non-homogenous hidden Markov models, functional time series models, and (generalized) linear mixed models in combination with the biological and geometrical knowledge of the phenomena are used to draw inference. There are Bayesian view as well as frequentist view towards the estimation of model parameters in my research. Big data problems have given me the opportunity of working with computational people and using their expertise in proposing a model as a solution.

The Department of Applied and Computational
Mathematics and Statistics

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