

ACMS Statistics Seminar

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Tues, September 19
154 Hurley Hall
3:30– 4:30 PM



Climate, Neuroscience, Visualization: Some Applications of Spatio-Temporal Statistics

During this talk, I will give a broad overview of some of my research in different areas where data in space and time occur. Most of my talk will be devoted on environmental applications, in particular on the use of statistical models to stochastically approximate complex deterministic climate models, in order to perform fast and affordable sensitivity analysis. I will then present more recent areas of research on assessment of mortality from wildfires in developing countries, and data compression. An application in neuroscience will then be discussed, with a model to assess brain activation in functional Magnetic Resonance Imaging (fMRI), along with possible extensions. In the last part of the talk, I will discuss data visualization, and the use of stereoscopic view and virtual reality to assess models on complex manifolds such as 3D global temperature on spherical shells with smartphone apps.

The Department of Applied and Computational
Mathematics and Statistics

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