SCMS Seminar

MAKING SENSE OF NOISY DATA: SOME ISSUES AND METHODS

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Lecture

Time: 16:00-17:00, Monday, Oct 8th, 2018

Venue: Room 106, Shanghai Center for Mathematical Sciences

Abstract: Thanks to the advancement of modern technology in acquiring data, massive data with diverse features and big volume are becoming more accessible than ever. The impact of big data is significant. While the abundant volume of data presents great opportunities for researchers to extract useful information for new knowledge gain and sensible decision making, big data present great challenges. A very important, sometimes overlooked challenge is the quality and provenance of the data. Big data are not automatically useful; big data are often raw and involve considerable noise. Typically, the challenges presented by noisy data with measurement error, missing observations and high dimensionality are particularly intriguing. Noisy data with these features arise ubiquitously from various fields including health sciences, epidemiological studies, environmental studies, survey research, economics, and so on. In this talk, I will discuss the issues induced from noisy data and some methods of handling such data.