

Speakers: Xinle Tian and Dan Miles (University of Bath)

Date: 07/05/2024 at 13:15 in 1 West 2.01

Talk 1: Multi-response linear regression estimation based on low-rank pre-smoothing

Abstract:

Pre-smoothing is a technique aimed at increasing the signal-to-noise ratio in data to improve subsequent estimation and model selection in regression problems. However, pre-smoothing has thus far been limited to the univariate response regression setting. Motivated by the widespread interest in multi-response regression analysis in many scientific applications, this article proposes a technique for data pre-smoothing in this setting based on low rank approximation. We establish theoretical results on the performance of the proposed methodology, and quantify its benefit empirically in a number of simulated experiments. We also demonstrate our proposed low rank pre-smoothing technique on real data arising from the environmental sciences..

Talk 2: TBC

Abstract:

TBC