

Department of Mathematics
City University of Hong Kong

Colloquium

Organised by Prof. Tong YANG and Dr Xianpeng HU

Variable Screening for High-Dimensional Survival Data

by

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Abstract:

Variable screening has gained increasing popularity in high-dimensional survival analysis. Most existing methods for variable screening with survival data suffer from that variable importance is assessed based on marginal models which relate the time-to-event outcome to each variable separately, implying that the relevance of one variable is examined when other variables are excluded. These methods will preclude variables that only manifest their influence jointly and may retain irrelevant variables that are correlated with relevant ones. To circumvent these difficulties, we propose a new approach to directly evaluating joint variable importance and achieving non-spurious screening. We establish the sure screening properties of the proposed method and demonstrate its effectiveness through simulation studies and a real data application. A novel stability selection-based procedure is also proposed for tuning.

Date: 31 October 2017 (Tuesday)
Time: 4:30 – 5:30pm
Venue: B6605, Blue Zone, 6th Floor, Yeung Kin Man Academic Building (AC1)
City University of Hong Kong

**** All interested are welcome ****
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