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GRAPHICAL MODELLING OF EXTREMES

Abstract:

The problem of inferring the distribution of a random vector given that its norm is large requires modelling a homogeneous limiting density. In this talk, I will present an approach based on graphical models which is suitable for high-dimensional vectors. I will introduce the notion of asymptotic conditional independence and relate it to a factorisation of the limiting density, generalising Hammersley-Clifford theorem.

This talk is based on a joint work with Prof. Robin Evans

References:

- [1] A. Hitz and R. Evans (2015) One-Component Regular Variation and Graphical Modeling of Extremes. *arXiv preprint arXiv:1506.03402*