DEPARTMENT OF STATISTICS SEMINAR SERIES

SIDNEY SMITH HALL, ROOM SS1083

THURSDAY, 08 NOVEMBER 2012 AT 3:30PM

Copula-based Inference for Discrete or Mixed Data

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The talk will first review various facts about copula models linking discrete distributions. It will be highlighted that undiscriminating transposition of modeling and inference practices from the continuous setting to the discrete one may produce misleading and invalid results. As a promising alternative avenue for inference, the so-called multilinear empirical copula will be introduced. The limiting behavior of the associated multilinear empirical copula process will be studied. These theoretical results will then be used to construct various inferential procedures for multivariate discrete or mixed outcomes. A graphical tool for detecting dependence called the dependogram will be presented, along with consistent tests of independence, that can be applied to both sparse contingency tables and tables whose dimension changes with the sample size.

Light refreshments will be served at 3:10 p.m.