

STUDENT SEMINAR

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Title

**Sampling a
Multi-Dimensional
Branching Tree**

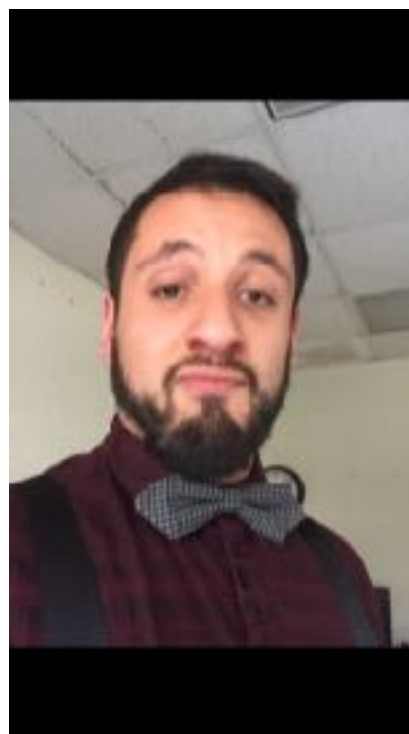
Speaker

Gonzalo Contador

(Ph.D. student in
Statistics, UW-
Madison)

Time & Place

Monday, Feb 11, 2:30pm,
SMI **133**



Abstract

Statistical inference using traditional methods with data spanning from a multi-dimensional Branching Tree poses two challenges: lack of independence between offspring from the same seed and characterization of a unique sampling distribution as a function of several offspring distributions when parent type data is not available. This talk presents a framework for sampling and inference based on family size data, for which the sampling distribution is shown to behave asymptotically as a size-biased, convex combination of existing offspring distributions. Estimation techniques are developed, along with a study of their asymptotic properties.