

TUFTS UNIVERSITY
Physics and Astronomy Colloquium

**“Who is doing what?
Clustering variables with
multiple affiliations through
higher order correlations”**

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When a system has many interactions among its constituents it can be difficult to sort out the global behavior. For example, one challenging task is to find clusters in a complex network. There are many approaches to this problem, depending on the available information and the goals. I will describe two methods. One, inspired by stochastic dynamics, is known as the “observable representation.” The other, new work reported here, is based on *higher order correlations* among the constituents and is suited to having each constituent belong to many clusters. This technique anticipates biological applications.

3:00 pm
Friday, January 27th, 2012
Robinson 253
Medford Campus

*Refreshments served at 2:30 in The Knipp Library,
Room 251*