Speaker:  Emanuel Ben-David, Stanford University

Title: Probabilistic Tools for Bayesian Inference in Directed Markov Random Fields

Abstract:
In the recent past, classes of flexible hyper-Markov laws have been proposed (and subsequently analyzed) for the purposes of high-dimensional Bayesian inference in important classes of Gaussian graphical models. A shortcoming of many of these theoretical endeavors is that they are often restricted to special class of graphs (such as decomposable graphs, etc.), and are therefore not always readily applicable — though they have led to rich probability and statistical theory. In this talk we propose a novel approach that aims to move beyond this restriction for the class of directed Markov random fields.

This is joint work with Bala Rajaratnam.