

STATISTICS COLLOQUIUM

MONDAY, MARCH 25, 2013

TALK: 4:15 PM — SCIENCE CENTER RM. 705

RECEPTION: 3:50 PM — SCIENCE CENTER, 7TH FLOOR

“Log-Concave Density Estimation with Applications”

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ABSTRACT

Log-concave densities on $\mathbf{R}^d$ form an attractive infinite-dimensional class that includes many standard parametric families and has several useful properties. For instance, in the context of density estimation, the log-concave maximum likelihood estimator is a fully automatic nonparametric estimator, with no smoothing parameters to choose. More generally, I will discuss ideas of log-concave projection and its relevance for density estimation, regression, testing and Independent Component Analysis problems.