

STATISTICS COLLOQUIUM

MONDAY, SEPTEMBER 10, 2012

TALK: 4:00 PM — SCIENCE CENTER RM. 309

RECEPTION: 5:15 P.M. – SCIENCE CENTER – 7TH FLOOR

**Efficiency of Bayesian procedures and the frequentist-Bayes
connection in some high dimensional problems**

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ABSTRACT

I will present my recent results on the efficiency of some of the widely used Bayesian procedures in high dimensional problems. I will present four examples, each highlighting a different challenge. The first two involve constructing shrinkage priors and understanding their properties and comparing them with their frequentist analogues. The third example entails the validity of a model selection procedure called ABC, widely used by biologists. I will close with some thoughts on the design of MCMC algorithms. All of these examples will hopefully illustrate the need for more careful research on the efficiency and even validity of these widely used methods.

All of this joint work with various collaborators.