MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

R.V. Ramamoorthi
Michigan State University

Bayesian Asymptotics in Misspecified Models

Tuesday, March 11, 2014
10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

Abstract:

Let $X_1, X_2, \ldots$ be i.i.d with common density f, where f is unknown. Π is a prior for f. Our interest is in the behavior of the posterior density $\Pi(\cdot|X_{1:n})$, when the true model p_0 is not in the support of the prior. In the finite dimensional case, it is known that the posterior converges to f^*, where f^* is the closest to p_0 in the Kullback-Leibler sense.

In this talk, I will explore the problem in the nonparametric case. Although a few results on this topic are available, these are somewhat inaccessible due, in part, to the technicalities and the subtle differences compared to the more familiar well-specified model case. In this talk, I will attempt to make some of the available results more accessible and transparent. The talk would be an exposition and extension of the work of Kleijn & van der Vaart (*Annals of Statistics 2006*) and De Blasi & walker (*Statistica Sinica 2013*) .

This talk is based on joint work with Karthik Sriram and Ryan Martin.

To request an interpreter or other accommodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.