

COLLOQUIUM OF THE DEPARTMENT OF APPLIED MATHEMATICS

Implicit sampling, data assimilation, and noise models

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Abstract

I will describe the difficulties in sampling many-dimensional probability density functions, and describe implicit sampling, a variationally-enhanced sampling algorithm. I will apply it to Bayesian estimation, in particular to sequential particle methods for data assimilation, i.e., for estimating the state and the parameters of a system from noisy equations and observations. Data assimilation requires noise models, and I will describe methods for estimating these models.

Thursday, 17 October 2013
13:05, ACMAC Seminar Room