

Colloquium

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MATHEMATICAL ANALYSIS OF SOME MACHINE LEARNING PROBLEMS

Friday, December 1, 2017

3:00 p.m. in ES-143

(tea & coffee at 2:30 p.m. in ES-152)

ABSTRACT. Machine learning and computational statistical algorithms are central to data science. In this talk, I will discuss the motivation and formulation of a variety of machine learning and statistical algorithms, including linear regression, splines, kernel machines, and information theoretical learning. Their mathematical foundations will be addressed through the bias variance trade-off, uniform central limit theorems, and convergence rate analysis.