



THE UNIVERSITY OF
CHICAGO

DEPARTMENT OF STATISTICS

Statistics Colloquium

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Econometrics and Statistics
University of Chicago Booth School of Business

“Adaptive Stochastic Optimization with Constraints”

MONDAY, NOVEMBER 28, 2022, at 4:30 PM

Jones 303, 5747 S. Ellis Avenue

Refreshments before the seminar at 4:00 PM in Jones 304.

ABSTRACT

Constrained stochastic optimization problems appear widely in numerous applications in statistics, machine learning, and engineering, including constrained maximum likelihood estimation, constrained deep neural networks, physical-informed machine learning, and optimal control. I will discuss our recent work on solving nonlinear optimization problems with stochastic objective and deterministic constraints. I will describe development of adaptive algorithms based on sequential quadratic programming and their properties.

The talk is based on the joint work with Yuchen Fang, Ilgee Hong, Sen Na, and Mihai Anitescu.