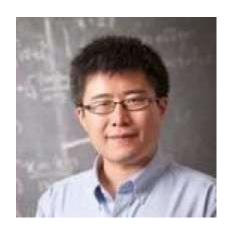# MATHEMATICS COLLOQUIUM

Convergence analysis of classical and quantum dynamics via hypocoercivity

In this talk we will review some recent developments in the framework of hypocoercivity to obtain quantitative convergence estimate of classical and quantum dynamics, with focus on underdamped Langevin dynamics for sampling and Lindblad dynamics for open quantum systems. If time permits, we will also discuss some related problems in two-timescale gradient descent and ascent dynamics.

THURSDAY

FEBRUARY

20

4:30 - 5:30PM
LECONTE COLLEGE
ROOM 444

Jianfeng Lu
James B. Duke Distinguished Professor of Mathematics, Duke University