THE UNIVERSITY OF CHICAGO | DEPARTMENT OF STATISTICS

Statistics Colloquium

PHILLIPE RIGOLETT

Department of Mathematics
MIT

"The sample complexity of learning transport maps"

MONDAY, OCTOBER 17th, 2022, at 4:30 PM
Jones 303, 5747 S. Ellis Avenue
Refreshments before the seminar at 4:00 PM in Jones 304.

ABSTRACT

Optimal transport has recently found applications in a variety of fields ranging from graphics to biology. Underlying these applications is a new statistical paradigm where the goal is to couple multiple data sources. It gives rise to interesting new questions ranging from the design of estimators to minimax rates of convergence. I will review several applications where the central problem consists in estimating transport maps. After studying optimal transport as a potential solution, I will argue that its entropic version is a good alternative model. In particular, it completely escapes the curse of dimensionality that plagues statistical optimal transport.