Applied Mathematics Seminar

Speaker: ***Michael Kane,***
Yale University

When: Tuesday, December 4th, 2018
4:00 p.m.

Where: LOM, 215

Latent Space Approaches to Subtyping in Oncology Trials

Abstract:

New, more effective cancer therapies have upended traditional randomized controlled trials. For targeted therapies and immunotherapies, single-arm trials made up heterogeneous groups of patients have become common. This change has motivated the development of new techniques for identifying patient subtypes based individual-level features. In this talk, we will present a framework based on a latent-space construction to characterize patients by their subtype, increase the predictive response rate, and construct counterfactuals to distinguish the effect of a drug from that of the subtype. Applications based on real trials will be included to illustrate these points. This is joint work with Brian Hobbs at the Cleveland Clinic.