Topology Seminar

John Terilla

of CUNY will be speaking on

Homotopy probability theory with an application to fluids

on October 19 at 4:30 in
MIT Room 2-131

Homotopy probability theory is a version of probability theory in which the vector space of random variables is replaced with a chain complex. I'll discuss how to use homotopy algebra (rather than analysis) to extract meaningful expectations and correlations among random variables. I'll give some natural examples, including an example that extends ordinary probability theory on a finite volume Riemannian manifold and has applications to fluid flow.