# GeomTop Seminar: Probabilistic Convergence and Stability of Random Mapper Graphs

## Adam Brown

In this talk I will discuss a probabilistic theory of convergence between a random mapper graph and the Reeb graph. I will outline the construction of an enhanced mapper graph associated to points randomly sampled from a probability density function concentrated on a constructible R-space. I will then explain how interleaving distances for constructible cosheaves and topological estimations via kernel density estimates can be used to show that the enhanced mapper graph approximates the Reeb graph in a precise way. The content of the talk is joint work with Omer Bobrowski, Elizabeth Much, and Bei Wang.

**Wednesday, July 17, 2019 01:00pm - 02:15pm**
IST Austria Campus Mondi Seminar Room 3, Central Building

This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: https://ist.ac.at/en/campus/how-to-get-here/ The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.