

Title: Computational methods in Reeb dynamics

Abstract: *A major challenge in studying conjectures in smooth dynamics (e.g. conjectures about Reeb flows) is the difficulty in constructing tractable examples. In this talk, I will discuss a theory of piecewise linear contact geometry, where dynamical questions can be probed computationally. These methods were used by myself and Hutchings to test several conjectures for convex Reeb flows, and more recently by Haim-Kislev-Ostrover to discover a counter-example to the Viterbo conjecture, a major open problem in Reeb dynamics.*