

Department Colloquium

Speaker: Christoph Kawan, University of Passau

Date: Friday, October 7

Time: 2:30 p.m.

Place: Jeffery 234

Title: Towards a Hyperbolic Theory of Control

Abstract: The concept of uniform hyperbolicity, introduced by Smale in the 1960s, has become a cornerstone for the hyperbolic theory of dynamical systems, developed in the ensuing decades. Uniformly hyperbolic structures are also found in nonlinear control systems. Combining the strength of geometric control theory and the hyperbolic theory of dynamical systems, it is possible to deduce control-theoretic results of non-local nature. In this talk, a survey of such results is given and future directions are pointed out, generalizing these results to partially hyperbolic setups.