

FELIX KLEIN SEMINAR

Speaker: Jun Zhang
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Date: Thursday, November 15, 2018

Time: 2:00 PM

Location: 258 Hurley Hall

Lecture Title:

Persistence modules in symplectic topology

Abstract

Persistence module is the central algebraic object in topological data analysis. Interestingly, various algebraic structures in symplectic topology can be formulated in the language of persistence modules. In this talk, I will start from the background of persistence modules and its related concept called barcode. Then I will explain how these new tools can be used to solve questions in Hamiltonian dynamics and symplectic embeddings (work on symplectic embeddings is joint with V. Stojisavljevic). Finally, I will mention several open problems motivated by this machinery.