TEXAS ★ STATE ®

Topology Seminar at Texas State

When: Friday, April 7, 2023, 11:00 a.m.

Where: DERR 333 *and* ZOOM (Zoom info at bottom of page)

Presenter: Dr. Justin Curry (SUNY Albany)

Title: Exemplars of Sheaf Theory in Topological Data Analysis

Abstract: In this talk I will present four case studies of sheaves and cosheaves in topological data analysis. The first two are examples of (co)sheaves in the small: level set persistence (and its efficacious computation via discrete Morse theory) and decorated merge trees and Reeb graphs (enriched topological invariants that have enhanced classification power over traditional TDA methods). The second set of examples are focused on (co)sheaves in the large: understanding the space of merge trees as a stratified map to the space of barcodes and the development of a new "sheaf of sheaves" that organizes the persistent homology transform over different shapes.

Zoom Information

Meeting URL (click this)
Meeting ID: 977 0390 3382
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