1163-55-1406   **Justin Michael Curry***, 1400 Washington Ave., ES 120C, Albany, NY 12222. *Discrete Approximations and Multi-Scale Analysis in Sheaves and Persistence.* Preliminary report.

This talk will tie together various efforts to use sheaves as a tool for proving approximation theorems in persistence, dating back to the pioneering results on Mapper by Elizabeth Munch and Bei Wang, as well as more recent results by Masaki Kashiwara and Pierre Schapira. A recently developed "Theory of Relative Interleavings" (https://arxiv.org/abs/2004.14286) will show how the interleaving distance itself can be approximated by relativizing over a discrete poset or lattice. Additional results on multi-scale analysis in persistence will be presented as well if time permits. (Received September 15, 2020)