1145-68-1462   **Yusu Wang*** (`yusu@cse.ohio-state.edu`) and **Qi Zhao**. *Learning metric for persistence diagrams.* Preliminary report.

Persistent homology can summarize and characterize a given domain from different perspectives in a multiscale manner. It thus provides a natural way to represent various types of data. In the past several years, there have been many interesting approaches developed either to provide kernels for persistence-based summaries or to vectorize them, so as to make persistence-based summaries more friendly with machine learning frameworks. In this talk, I will describe our investigation and results on learning the appropriate metrics for persistence-based summaries, and applications. (Received September 22, 2018)