

1145-13-2607 **Ashleigh Thomas*** (athomas@math.duke.edu). *Summary statistics for persistent homology.*

Persistent homology is a multiscale geometric and topological data analysis technique that has output in the form of a module. These modules can be too unwieldy to work with, so statistical analysis is done on summary statistics for the modules instead of on the modules themselves. I will discuss the interplay of algebra and stochastic analysis while I describe some desirable properties of persistence module summary statistics and give a novel example. (Received September 25, 2018)