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**Topology, Geometry, and Data**

**Abstract**

Topological Data Analysis (TDA) is a relatively new field which aims to leverage the tools of algebraic topology, in combination with ideas and algorithms from computational geometry, to derive new ways of examining data. In particular, qualitative features such as the “shape” of data can be made quantitative. I will give a brief overview on some of the techniques of the field, particularly focussing on the technique of persistent homology, and identify some of the core research questions being studied within the field.