1128-00-301 Mimi Tsuruga* (mtsuruga@math.ucdavis.edu), UC Davis, One Shields Ave, Davis, CA 95616.

Topology of Data: A special topic.

Applied topology is an area of research with many open problems whose popularity is markedly on the rise, especially in the context of data analysis. It is also a highly interdisciplinary field and can be appealing to researchers of varying backgrounds. To promote further development and research in this increasingly relevant field, we hope to tempt experts in our field to teach a special topics course at their home institutes.

In this talk, we present an example of a graduate level special topics course at UC Davis taught in Fall 2016. We discuss how applied topology can be introduced to students of a wide variety of disciplines. We will also present the final results from the students' group projects, which analyzed publicly available or generated data sets using techniques from topological data analysis. The data sets include biological data, video or image data, financial data, and time series data such as crime or weather. (Received February 28, 2017)