

# LEARNING GEOMETRY USING TOPOLOGY AND PERSISTENCE LANDSCAPES

PETER BUBENIK

In this talk I will give an introduction to Topological Data Analysis (TDA), which summarizes the shape of data. It is sometimes said that TDA detects the underlying topology of the data; I will argue that it is better to say that TDA captures the underlying geometry of the data. I will support this thesis with two examples: one using biological images and the other using points sampled from surfaces of constant curvature.

(Peter Bubenik) UNIVERSITY FLORIDA