

Esther Ibáñez (ISI Foundation)

Title: Topological Data Analysis: when shape matters

Abstract:

Topological data analysis (TDA) can be broadly described as the application of topological ideas to find structure in data. The breakthrough in this field started during the 2000 with the introduction of persistent homology, an algorithm that allows one to study how the "shape" of a dataset varies across different levels of detail. In this talk we present an introduction of the subject and we discuss some examples in different fields: neuroscience, image recognition, ...