



ICTS

INTERNATIONAL
CENTRE *for*
THEORETICAL
SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS-NCBS Dynamic Friday

- Title : Introduction to Topological Data Analysis (TDA)
- Speaker : Dr Varun Thakre, ICTS-TIFR
- Date : Friday, January 3, 2020
- Time : 2:00 PM
- Venue : CES Seminar Hall, IISc (3rd floor of the Biological Sciences Building)
- Abstract : In this talk, I will give an introduction to Topological Data Analysis (TDA), which uses techniques in Topology to uncover hidden patterns in data cloud. At the heart of TDA lies the philosophy that data has a shape, and shape carries meaning. In other words, data cloud can be thought of as points distributed over a smooth manifold. TDA focuses on understanding the shape of the manifold by suitably projecting the data to two dimensions.

I will focus on certain case studies and talk about the merits of TDA in gaining a qualitative understanding of data.