



Universität Stuttgart



# Kolloquium des Fachbereichs Mathematik

Es spricht am Montag, 19. Juni 2023 um 14:00 Uhr

**Herr Professor Christian Hirsch** (Aarhus University)

zum Thema: „**Statistical foundations of topological data analysis**“

## Abstract:

Topological data analysis (TDA) is an emerging field at the interface between algebraic topology and data science. The philosophy behind TDA is to leverage invariants from algebraic topology to gain insights into data sets. While initially, TDA was developed and promoted by mathematicians, it is now applied in a variety of disciplines such as biology, chemistry, and materials science. The key tool in TDA is the persistence diagram, which captures the appearance and disappearance of topological features at multiple scales. In this talk, I will review recent advances in the statistical foundations of dealing with persistence diagrams on random input.

Der Vortrag findet im Sitzungssaal 8.122 der Fakultät Mathematik und Physik, Pfaffenwaldring 57, 70569 Stuttgart-Vaihingen statt. Interessenten sind herzlich eingeladen!

Die Dozentinnen und Dozenten des Fachbereichs Mathematik