Deformationsquantisierung

Am 8. 1. 2021 spricht um 14 Uhr c.t.

`https://bbb.durates.net/b/ste-2va-uez`

Martina Flammer

An Introduction to Persistent Homology

Persistent homology is a central topic of the field of topological data analysis (TDA). In TDA one frequently faces the problem that a set of data is given that was sampled on a space but the structure of the space is unknown. Persistent Homology (PH) provides a tool which allows to study the toplogical invariants of this space by building a sequence of simplicial complexes from the data, also known as the persistence complex. By regarding several scales one gets information about connectivity of the space (connected components, holes, voids...), which is can be used for analysis of networks, dynamical systems, protein structures, and much more. In my talk I will give an introduction to the mathematical background, the computation of PH and the state of the art in this field.

gez. Stefan Waldmann