

# BERNOULLIS TAFELRUNDE

GRADUATE STUDENT SEMINAR

**Thursday, 1 October, 12:15-13:00**  
Seminarraum 00.003, Spiegelgasse 1

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## Persistent Homology

### ABSTRACT

In recent years, there has been an ever growing interest in applying topological methods to study large data sets. Persistent homology is one of these methods. To a given data set, it assigns a simplicial complex that grows over time and studies the homological features that persist, leading to the data set's so-called persistence diagram. After a quick, more concrete, explanation how this is done and a real-world example how it might be used, we will see how persistence diagrams can be generalised by adding a colouring, which might open the door to statistical methods being applied.