

Research Seminar

# Topological Data Analysis

Thursdays 11.15 am to 12.45 am

STRUCTURES | EP MATH AND DATA

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In recent years there has been a somewhat surprising flow of ideas from the mathematical branch of topology towards applications in the natural sciences. The tale of Topological Data Analysis (TDA) has it, that these methods provide a highly flexible, nonparametric approach to data analysis. Indeed, there are by now several well-known mathematical results that make statements of this kind rigorous. However, successful applications of TDA often build on a deep intuition about the system in question and many theoretical aspects of TDA remain active fields of research.

## Scope and Content

The goal of this seminar is to bring together people from various backgrounds who are interested in TDA. We will have talks on topics ranging from applications of TDA on real world problems to the abstract mathematical foundations of the subject. In addition, we aim to discuss works, which are inspired by TDA but not employing it directly. Contributions by prospective participants are very welcome.

## Time and Place

We will meet in person in room 0.200 on the ground floor of the Mathematikon, Thursdays 11.15 am to 12.45 am. The first meeting of the semester will take place on **April 27th, exceptionally in the SR Statistik 02.104 of the Mathematikon.**

If you would like to receive weekly reminders, please subscribe to our mailing list:

<https://lists.mathi.uni-heidelberg.de/cgi-bin/mailman/listinfo/structures-mathdata>

For more information and updates see the website:

[https://wiki.structures.mathi.uni-heidelberg.de/index.php/Heidelberg\\_TDA\\_Seminar\\_\(Summer\\_2023\)](https://wiki.structures.mathi.uni-heidelberg.de/index.php/Heidelberg_TDA_Seminar_(Summer_2023))

In the case of questions, you can reach us as follows:

Daniel Spitz [spitz@thphys.uni-heidelberg.de](mailto:spitz@thphys.uni-heidelberg.de)

Lukas Hahn [lhahn@mathi.uni-heidelberg.de](mailto:lhahn@mathi.uni-heidelberg.de)