



## LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

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Summer Term 2022

# Algebraic Topology

Tobias Dyckerhoff

### Course Description:

This course will be an introduction to algebraic topology covering the topics

- Simplicial, singular and cellular homology
- Cohomology and the cup product
- Oriented manifolds and Poincaré duality
- ...

### Prerequisites:

Introductory course on topology

### Literature:

Lecture notes and a list of recommended books can be found on

<https://www.math.uni-hamburg.de/home/dyckerhoff/algtop22/index.html>.

**Date and Place:** Wed 14:15–15:45, Hörsaal H2, Geomatikum  
Fri 12:15–13:45, Hörsaal H1, Geomatikum, recorded videos

**Problem Classes:** Fri, 14:15–15:45, SemRm 1240, Geomatikum

**Starting on:** 6 April 2022

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