

## Ruprecht-Karls-Universität Heidelberg

Mathematisches Institut

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# Seminar WS 2021/22

# TOPOLOGY AND GEOMETRY OF TORIC VARIETIES

Prof. Dr. Markus Banagl, Shahryar Ghaed Sharaf Tue. 4-6 p.m., INF 205, SR 4

First Meeting: Tue. 19 Oct.

Registration: Register first on MÜSLI, then send an email to ssharaf@mathi.uni-

 $\overline{\text{heidelberg.de}}$ 

### Description:

In this seminar we want to study toric varieties from two perspectives. We start with a short introduction to schemes. We also briefly discuss the gluing construction of schemes. Based on these concepts we will introduce the algebraic construction of toric varieties. There is also a topological description of toric varieties, which we will review as well. Having both constructions in hand, we will study the homology groups of toric varieties. The seminar language is English.

Prerequisite: Algebraic topology 1

#### **Contact**:

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