

Otto-von-Guericke-Universität Magdeburg  
Fakultät für Mathematik

Auf Einladung des Institutes für Algebra und Geometrie spricht

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über das Thema

## Uniqueness of universal groups for right-angled buildings

**Zeit:** Dienstag, 6. Dezember 2022, 13.00 Uhr, G03-214

Zu diesem Vortrag laden wir alle Interessierten herzlich ein.

Prof. Dr. Petra Schwer

**Abstract:** Universal groups have been introduced by Burger and Mozes in 2000 as a tool to study lattices in products of trees. Originally, these groups are subgroups of the automorphism group of a regular tree that satisfy some local data. Since trees are right-angled buildings, the question arose whether this construction of groups can be translated to right-angled buildings and in 2018 De Medts, Silva, and Struyve published a generalisation to right-angled buildings. If the building is locally finite, these groups are compactly generated locally compact totally disconnected groups.

I will present universal groups as subgroups of the automorphism group of a right-angled building and discuss some of their properties. Further, I will talk about the recent result that two universal groups for different right-angled buildings of the same type can be topologically isomorphic.