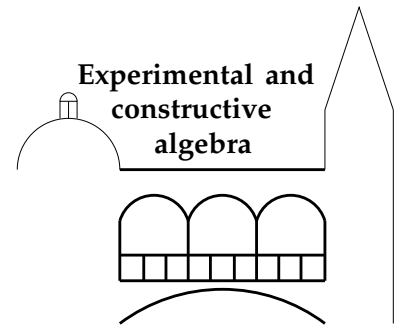


Graduiertenkolleg

# Experimentelle und konstruktive Algebra



## Kolloquiumsvortrag

Dienstag, 5. Juni 2018, 14:00 Uhr, Hörsaal V

**SIMON SCHMIDT (UNIVERSITÄT DES SAARLANDES):**  
***Quantum automorphism groups of finite graphs***

To capture the symmetry of a graph one studies its automorphism group. We will talk about a generalization of automorphism groups of finite graphs in the framework of Woronowicz's compact matrix quantum groups.

The first part of the talk will concern compact matrix quantum groups. As an important example we discuss the quantum symmetric group, the quantum analogue of the symmetric group. Quantum automorphism groups of graphs are certain quantum subgroups of the quantum symmetric group.

In the second part we will look at the Petersen graph and see that this graph does not have quantum symmetry, i.e. its quantum automorphism group is commutative.

Wir laden alle Interessierten herzlich ein.