



Mathematisches Kolloquium

**Fixed points of group actions on
unitary partition complexes**

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The poset of nontrivial partitions of a finite set can be geometrically realized to obtain a topological space equipped with an action of the symmetric group. This space and its fixed point spaces by actions of subgroups of the symmetric group has been investigated in a series of papers by Arone, Dwyer, and Lesh and is expected to lead to a new proof of the Whitehead Conjecture. In joint work with Joachimi, Lesh, Stojanoska, and Wickelgren, we consider instead nontrivial decompositions of a finite dimensional complex vector space into orthogonal subspaces, which form a topological poset. We investigate its geometric realization and the fixed point spaces by actions of subgroups of the unitary group.

Montag, 25. September 2017, KG I/Bau A 103, 14.00 Uhr s.t.