CAYLEY GRAPHS WITH FEW AUTOMORPHISMS

Fudan Topology Seminar

Speaker: Paul-Henry Leemann

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Time: Fri, Nov. 10th, 16:00-17:30

Venue: Room 102, SCMS

Abstract: Let G be a group and S a generating set. Then the group G naturally acts on the Cayley graph Cay(G,S) by left multiplications. The group G is said to be rigid if there exists an S such that the only automorphisms of Cay(G,S) are the ones coming from the action of G. Equivalently, a group G is rigid if there exists a graph X with G=Aut(X) acting simply transitively on the vertices of X. While the classification of finite rigid groups was achieved in 1981, few results were known about infinite groups. In a recent work, with M. de la Salle we gave a complete classification of infinite finitely generated rigid groups. As a consequence, we also obtain that every finitely generated group admits a Cayley graph with countable automorphism group.