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GROUPS ACTING ON TREES AND TREE-LIKE GRAPHS

Bass-Serre theory is the perhaps most important tool for studying subgroups of the automorphism group of a tree. However, its usefulness in constructing group actions with given local properties is limited. To overcome this issue, Reid and Smith recently introduced the theory of local action diagrams. These diagrams are purely combinatorial objects which are in 1-to-1 correspondence to (P)-closed groups acting on trees.

The aim of this talk is to introduce graphs of group actions, a notion generalising local action diagrams while retaining many interesting properties of the theory, in particular constructability of groups from local combinatorial information.

This is joint work with Christian Lindorfer, Rögnvaldur Möller, and Wolfgang Woess.