

Self-similar Compressible \mathfrak{T} -groups

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Abstract

According P. Hall's notation, a finitely generated torsion-free nilpotent group G of nilpotency class c is called \mathfrak{T}_c -group. G is *compressible* if every proper finite index subgroup of G contains a finite index subgroup which is isomorphic to G (which implies that G is non-cohopfian). For example, \mathfrak{T}_2 -groups, 2-generated \mathfrak{T}_3 -groups and the r -generated free nilpotent groups of class c (denoted by $F(r, c)$, with $r, c \in \mathbb{N}$) are compressible. In this talk will be proved that $F(r, c)$ acts on a regular tree of valency m as a transitive self-similar group. Yet, this action is finite-state and the number m is determined by the Möbius function.

References

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