Research

Algebra Seminar

Virtually nilpotent groups with finitely many orbits under automorphisms

Alex Carrazedo Dantas
University of Brasilia (UnB)

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Acesso à sala virtual:

Abstract. Let G be a group. The orbits of the natural action of $\mathrm{Aut}(G)$ on G are called "automorphism orbits" of G, and the number of automorphism orbits of G is denoted by $\omega(G)$. Let G be a virtually nilpotent group such that $\omega(G) < \infty$. In this presentation we show that $G = K \rtimes H$ where H is a torsion subgroup and K is a torsion-free nilpotent radicable characteristic subgroup of G. Moreover, we show that $G' = D \times Tor(G')$ where D is a torsion-free nilpotent radicable characteristic subgroup. In particular, if the maximum normal torsion subgroup $\tau(G)$ of G is trivial, then G' is nilpotent. This is a joint work with Raimundo Bastos and Emerson de Melo.