Geometric Group Theory/Théorie géométrique des groupes
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• SHORT TALKS •

On quasi-isometrically embedded free subsemigroups

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Abstract

Let G be a finitely generated solvable group. We prove (joint with R. Tessera) that if G is not virtually nilpotent, then G contains a free subsemigroup on 2 generators that is quasi-isometrically embedded in G. In particular, G contains a quasi-isometrically embedded 3-regular tree. The proof is based on Groves's results on finitely generated solvable groups, combined with a metric version of the ping-pong Lemma.