

GEOMETRIC AND ASYMPTOTIC GROUP THEORY
WITH APPLICATIONS
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Subset sum problem in polycyclic groups

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Abstract:

We consider a group-theoretic analogue of the classic subset sum problem. It is known that for virtually nilpotent groups the corresponding problem is polynomial time decidable. In this work we use subgroup distortion to show that every polycyclic group which is not virtually nilpotent has NP-complete subset sum problem. Joint work with A.Ushakov.