



GEOMETRIC AND ASYMPTOTIC GROUP THEORY
WITH APPLICATIONS
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Equations in free associative algebras and group algebras

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Abstract:

I will survey results on the Diophantine problem in different rings and show that it is undecidable in free associative algebras over a field and in group algebras of torsion free hyperbolic groups over a field (of characteristic zero and positive characteristic greater than 2). These are joint results with A. Miasnikov.