

# First Joint Meeting Brazil Italy of Mathematics Special Session: Ring Theory and its Applications

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**Title:** Identical relations in group rings and enveloping algebras

**Authors:** Victor Petrogradsky

**Abstract:** We discuss rather old and recent results on existence of identical relations in group rings, enveloping algebras of Lie algebras, and smash products. We describe the situation for different characteristics, the cases of universal and restricted enveloping algebras, group rings, smash products, Lie algebras, Lie superalgebras, restricted Lie (super)algebras. Also we consider Poisson identical relations. As particular cases, we discuss conditions for these algebras to be Lie nilpotent or Lie solvable.