

LIE ALGEBRAS OF SLOW GROWTH

Victor Petrogradsky
University of Brasilia, Brazil
petrogradsky@rambler.ru

We discuss rather old and recent constructions of Lie algebras and superalgebras of slow growth. In particular, we obtain examples of finitely generated (self-similar) (restricted) Lie (super)algebras of slow polynomial growth with a nil p -mapping.

By their properties, these restricted Lie (super)algebras resemble Grigorchuk and Gupta-Sidki groups. We discuss different properties of these algebras and their associative hulls.