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LIE TYPE JORDAN ALGEBRAS

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We study the variety $\mathcal{V}_J$ of Jordan algebras defined by the identities $x^2yx \equiv 0$ and $(x_1y_1)(x_2y_2)(x_3y_3) \equiv 0$. We suggest a method for constructing an algebra in $\mathcal{V}_J$ from an arbitrary Lie superalgebra. For certain subvarieties, we completely describe their identities and sequences of cocharacters. As a corollary, we obtain the first example of a variety of Jordan algebras with fractional exponential growth.

Key words and phrases: solvable Lie algebras, polynomial identities, sequence of cocharacters of a variety, growth of varieties of algebras, fractional exponential growth.

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