

Description of some classes of Leibniz algebras

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ABSTRACT

In this paper we describe the isomorphism classes of finitedimensional complex Leibniz algebras whose quotient algebra with respect to the ideal generated by squares is isomorphic to the direct sum of three-dimensional simple Lie algebra sl_2 and a threedimensional solvable ideal. We choose a basis of the isomorphism classes' representatives and give explicit multiplication tables.

KEYWORDS : Lie algebra, Leibniz algebra, Solvable Lie algebra, Simple Leibniz algebra

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