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Álgebras de Lie nilpotentes de tipo 2

Resumen (en inglés) de la conferencia:

We propose the study and description of the structure of complex Lie algebras with nilradical a nilpotent Lie algebra of type 2 by using  $\mathfrak{sl}(2, \mathbb{C})$ -representation theory. Our results will be applied to review the classification given in [1] (J. Geometry and Physics, 2011) of the Lie algebras with nilradical the quasiclassical algebra  $L_{5,3}$ . A non-Lie algebra has been erroneously included in this classification. The 5-dimensional Lie algebra  $L_{5,3}$  is a free nilpotent algebra of type 2 and it is one of two free nilpotent algebras admitting an invariant metric. According to [13], quasiclassical algebras let construct consistent Yang-Mills gauge theories.