Two Superfields in Search of a Theory

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Abstract

We discuss maximal Supergravity and maximal supersymmetric Yang-Mills Theory and show that they can be described in terms of two constrained superfields on the light-cone, *without the use of auxiliary fields.* We show that the same superfield can be used in the maximal dimensions as well as in all those dimensions to which the two theories can be reduced. We stress the similarities between these two superfields that can be seen as masterfields for a series of theories.

Lecture presented at the The 5th International School and Workshop on QFT and Hamiltonian Systems, 20-26 May 2006, Calimanesti-Caciulata, Romania.

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