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## **INFINITE-DIMENSIONAL R-SYMMETRY IN SUPERGRAVITY**

Recent work devoted to the study of symmetry structures of supergravity, or the unifying M-theory, has revealed interesting links to the theory of Kac-Moody algebras and their subalgebras. After reviewing these links for the bosonic fields of the theory I will discuss how the fermionic fields fit into the picture. This requires non-trivial results on the mathematical structure of some infinite-dimensional algebras which go beyond the Kac-Moody class. These results permit one to find a common origin of all fermionic fields appearing in the various maximal supergravity theories.