Looking for a natural notion of superspace and superspacetime

Adolfo Sanchez

Centro de Investigación en Matemáticas A.C. (México)

adolfo@cimat.mx

Abstract

It will be shown, in a self-contained and rather elementary fashion, how to classify all the Lie superalgebras that are associated naturally (ie, via the adjoint representation) to a given real or complex 3- dimensional Lie algebra. The same classification problem over the 4-dimensional real Lie algebra of the unitary group U_2 will also be approached, and its connection with Minkowski spacetime will be discussed.