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Spinor Types in Infinite Dimensions

The Cartan-Dirac classification of spinors into types is generalized to infinite dimensions. The main conclusion is that, in the statistical interpretation where such spinors are functions on \mathbb{Z}_2^∞ , any real or quaternionic structure involves switching zeroes and ones. There results a maze of equivalence classes of each type. Some examples are shown in $L^2(\mathbb{T})$. The classification of spinors leads to a parametrization of certain non-associative algebras introduced speculatively by Kaplansky.

Keywords: Spinors, representations of the CAR, division algebras.

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