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Group theoretic approach to calculate the ξ - pseudo Dirac operator and its spectrum on AdS^2

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Abstract

ξ -pseudo Dirac operator has recently been constructed with the help of ξ -pseudo modules and appropriate projectors on AdS^2 space. In this article, this operator will be constructed with the help of group theory. For this purpose, firstly, the spin structure of AdS^2 space is built and then, with the help of relations related to right and left actions and Maurer-Cartan forms, ξ - pseudo Dirac operator and then its scalar form in, instanton and non-instanton mode is introduced will be and at the end its spectrum is also calculated in different states of this ξ -pseudo operator.

Keywords: ξ - pseudo Dirac operator, ξ - pseudo chirality operator, spinor bundle, gauge fields, spectrum

For full article, refer to the Persian section