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Parallelizations for Representations of $SO_0(2,q)$

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Abstract: We consider generalizations to $SO_0(2,q)$ of results in [1], [2], [3], [4] and [5] dealing with parallelizations of associated induced bundles for $SO_0(2,4) = SU(2,2)/\mathbb{Z}_2$ representations which are induced from (non-unitary) finite dimensional representations of a maximal parabolic subgroup. Except for the so-called oscillator parallelization, first worked out in [5] by O.S. Sviderskii for SU(2,2), there are three different realizations or parallelizations, one is associated with the Iwasawa decomposition, the other with a Bruhat-like decomposition and the last one with decompositions first described for for $SO_0(1,n)$ in [6] and for $SO_0(2,n)$ in [7].

References

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