

SOME CLASSIFICATIONS OF LIE INVARIANT RICCI TENSOR IN COMPLEX TWO-PLANE GRASSMANNIANS

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ABSTRACT. In this paper, we introduce some notions of invariancy for the Ricci tensor on real hypersurfaces in complex two-plane Grassmannians $G_2(\mathbb{C}^{m+2})$, namely, invariant and \mathcal{F} -invariant Ricci tensor. Using these notions, we give characterization for the special case among the real hypersurfaces of Type (A) in $G_2(\mathbb{C}^{m+2})$ and non-existence theorem, respectively.

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