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Canonical representation of tangent vectors of Grassmannians. (English. Russian original) Zbl 1151.53340

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Summary: The structure of the tangent bundle of the real Grassmann manifold $G_+^{p,n}$ under the Plücker embedding (in the exterior algebra of the initial Euclidean space) is studied. Explicit expressions for the relation between decompositions of a tangent vector with respect to different bases of the tangent space are obtained, and a constructive method yielding the canonical (= simplest) decomposition is presented.

MSC:

53C35 Differential geometry of symmetric spaces
15A75 Exterior algebra, Grassmann algebras

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