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Holomorphic Projective Operators on Almost Complex Manifolds

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Abstract - The aim of this paper is to study the $\delta - J -$ decomposition problem of tensors on almost complex manifolds introducing a $\mathcal{F}(M)$ - module of holomorphic projective invariant operators acting on a general affine space $\mathcal{A}^1_{r-1}(M)$ of geometrical object fields of type $(1, r-1)$ over M, the emphasis being on the family of projections, which do provide insight of some problems of differential geometry. Infinitely many invariants on a Kähler manifold are obtained studing closed diagrams, which reflect an invariance of gauge type.
Key words and phrases : almost complex manifolds, Kähler manifolds, holomorphic projective invariant tensors algebra, H-projective projections, δ-J- decompositions, gauge invariance.
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