QUATERNIONIC MANIFOLDS WITH ROTATING CIRCLE ACTION

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B. Feix [3] (and D. Kaledin [5] independently) showed that there exists a hyperkähler metric on a neighbourhood of the zero section of the cotangent bundle of any real-analytic Kähler manifold. B. Feix provided an explicit construction of its twistor space and showed that any hyperkähler manifold admitting a rotating circle action near its maximal fixed point set arises locally in this way. The construction have been further generalized to hypercomplex manifolds (see Feix [4]. Kaledin [6]), quaternionic manifolds (see Borówka, Calderbank [2]) and quaternion-Kähler manifolds (see Borówka [1]). In this poster we will discuss the cases of the construction and we will mention connections with c-map construction.

References

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