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Instability of the nearly-Kähler six-sphere. (English) Zbl 0765.53025
J. Reine Angew. Math. 439, 205-212 (1993).

An almost-Hermitian structure is said to be harmonic if the parametrizing section of the twistor bundle is a critical point of the energy functional, with respect to variations through sections. It is shown that every nearly-Kähler structure is harmonic, in particular the standard almost-complex structure on the six-sphere. However, the latter is unstable, there being a 7-parameter family of energy-decreasing variations through nearby almost-Hermitian structures.

Reviewer: [C.M.Wood \(Heslington\)](#)

MSC:

[53C15](#) General geometric structures on manifolds (almost complex, almost product structures, etc.) Cited in **10** Documents

Keywords:

[almost-Hermitian structure](#); [twistor bundle](#); [energy functional](#); [nearly-Kähler structure](#); [six-sphere](#)

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