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On the non-existence of orthogonal instanton bundles on \mathbb{P}^{2n+1} . (English) Zbl 1200.14085
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Instanton bundles are vector bundles E of rank $2n$, on a projective space of odd dimension $2n + 1$, arising as the middle cohomology of a monad. There are examples of instanton bundles which are symplectic, in the sense that there exists an isomorphism $\alpha : E \rightarrow E^*$ such that $\alpha = -\alpha^*$. In particular, every instanton bundle on \mathbb{P}^3 is symplectic. One could rise the question about the existence of orthogonal instanton bundles, i.e. bundles endowed with an isomorphism α as above, with $\alpha = \alpha^*$. The authors close the question, by showing that no instanton bundles are orthogonal.

Reviewer: [Luca Chiantini \(Siena\)](#)

MSC:

[14J60](#) Vector bundles on surfaces and higher-dimensional varieties, and their moduli Cited in 2 Documents

Keywords:

[instanton bundles](#)

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