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Rank 2 reflexive sheaves on a smooth threefold. (English) Zbl 1183.14026
[Rend. Semin. Mat., Torino 62, No. 3, 235-254 \(2004\)](#).

Summary: We show that some properties of rank 2 reflexive sheaves true on \mathbb{P}^3 can be extended to a wide class of smooth projective threefolds, including smooth 3-dimensional complete intersections and some Fano threefolds. In particular, we extend the Hartshorne-Serre correspondence between rank 2 reflexive sheaves and curves lying on the threefold. Also, we establish the non-negativity of the third Chern class of a rank 2 reflexive sheaf.

MSC:

[14F05](#) Sheaves, derived categories of sheaves, etc. (MSC2010)

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

[14J30](#) 3-folds

Cited in **2** Reviews
Cited in **1** Document

Keywords:

[Hartshorne-Serre correspondence](#); [Picard group](#); [third Chern class](#)

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