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On the algebraic structure of twistor spaces. (English) Zbl 0742.53024
J. Differ. Geom. 36, No. 2, 451-491 (1992).

Among all the twistor spaces associated to the connected sum of complex projective planes, some of them have positive algebraic dimension. We investigate the relation between the algebraic dimension and the algebraic structure of the elementary divisors in the twistor spaces. In particular, we find the algebraic structure of any twistor space associated to the connected sum of three copies of the complex projective plane. We are also able to characterize LeBrun twistor space.

Reviewer: Y.S.Poon (Riverside)

MSC:

53C55 Global differential geometry of Hermitian and Kählerian manifolds
32L25 Twistor theory, double fibrations (complex-analytic aspects)

Cited in **5** Reviews
Cited in **14** Documents

Keywords:

self-duality; twistor spaces; connected sum; algebraic dimension; elementary divisors

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