

ORTHOGONAL INSTANTON BUNDLES OF HIGHER RANK ON \mathbb{P}^3

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In this work we provide a bijection between equivalence classes of orthogonal instanton bundles over \mathbb{P}^3 and symmetric forms. Using such correspondence, we prove the non-existence of orthogonal instanton bundles on \mathbb{P}^3 , with second Chern class equals to one or two, and we also provide examples of orthogonal instanton bundles of second Chern classes three and four on \mathbb{P}^3 .

Joint work with Simone Marchesi (University of Campinas, Brazil).