

K-linear monads on quadratic hypersurfaces

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Abstract

We introduce low rank vector bundles on a quadric realized as the cohomology of a monad, called (k, c) -bundles. We show stability on \mathbf{Q}_3 , \mathbf{Q}_5 and in the special symplectic case. Then, we analyze regularity and we exposed various cohomological characterizations. Finally, we consider the locus $M_{\mathbf{Q}_{2l+1}}[k, c]$, in the Maruyama scheme, parameterizing (k, c) -bundles on \mathbf{Q}_{2l+1} , we study the dimension of its tangent space, at a point parameterizing a special symplectic (k, c) -bundle, and we show that for any $k \geq 1$, $l > 1$ and $c > 1$ the moduli space is singular.