

Abstract: Fix a linear polynomial $P(m) = dm + c$ with integer coefficients and consider the Simpson moduli space M of semistable sheaves with this Hilbert polynomial on the projective plane. A generic sheaf in M is a line bundle on its Fitting support, which is a planar projective curve of degree d .

For the infinite series of moduli spaces corresponding to the Hilbert polynomials $dm - 1$, $d > 3$, we study the geometry of the closed subvariety M' of sheaves that are not vector bundles on their support. M' is a singular variety of codimension 2 in M .

Our aim is to substitute M' in M by a divisor and interpret the result as a space of vector bundles on curves.