

Obstructions to deforming degenerate curves on a scroll

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ABSTRACT. Let $V \subset \mathbb{P}^n$ be a projective variety. A curve C on V is said to be degenerate if C is contained in a hyperplane section $S = \mathbb{P}^{n-1} \cap V$ of V . We say that C is stably degenerate if every small deformation C' of C in V is contained in a deformation S' of S in V . In this talk, given a degenerate curve C on a scroll V (a projective space bundle over a projective line), I will discuss the problem of determining whether or not C is stably degenerate.