

Let $X \subset \mathbf{P}^N$ be a scroll over a smooth curve C . The special geometry of X implies that certain sheaves related to the jet bundles of the hyperplane bundle of X are locally free. The inflectional loci of X can be expressed in terms of these sheaves, leading to explicit formulas for the cohomology classes of the loci. The formulas imply that the only uninflected scrolls are the balanced rational normal scrolls.

During the talk these results will be shown as well as the main ideas to obtain similar formulas for scrolls over smooth surfaces or higher order dimensional varieties.

This is a joint work with A. Lanteri and R. Piene.