

Title: Uniform vector bundles on Fano manifolds

Abstract: Let X be a (complex projective) Fano manifold. Suppose that X is covered by lines, that is, there exists a family of rational curves sweeping out X and of degree one with respect to an ample divisor on X . It is well known that any vector bundle E on X splits as a sum of line bundles when restricted to a curve in the family. The vector bundle E is called uniform if this decomposition does not depend on the curve. We will present a splitting criterion for uniform vector bundles on this kind of Fano manifolds. In fact we will revisit the so called *standard construction* in terms of minimal sections over rational curves to state a result that can be applied for different Fano manifolds. We will focus on the application for the classification of uniform vector bundles of low rank on Hermitian symmetric spaces. This is joint work with G. Occhetta and L. E. Solá.