

Seminari de Geometria Algebraica 2006/2007 (UB-UPC)

Divendres 30 de Març a les 15hs a l'aula B4

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Vector bundles on Fano threefolds of genus 7 and Brill-Noether loci

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Let X be a smooth Fano threefold with $\text{Pic}(X) = \mathbb{Z}$, index 1 and genus 7. In a joint work with Daniele Faenzi (University of Florence), we studied the Maruyama moduli spaces $M_X(2, 1, d)$ of rank 2 semistable sheaves on X with fixed Chern classes $c_1 = 1, c_2 = d \geq 6$. The main tool we used is a semiorthogonal decomposition of the derived category of X provided by Kuznetsov (2005). This decomposition allows us to give a birational map between a component of the moduli scheme $M_X(2, 1, d)$ and a Brill-Noether variety of stable vector bundles on a canonical curve Γ of genus 7. This map turns out to be an isomorphism in the case $d = 6$. In my talk I will explain the general method and I will focus on the particular case $d = 6$, where we can describe very precisely the property of the moduli space.
