

Moduli spaces as Fano manifolds

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Let $M(r, d)$ be the moduli space of vector bundles of rank r and degree d over a smooth projective curve. One of the tools in the geometric study of this space is the Hecke correspondence. Using this one can construct through its generic point, a rational curve (which we call Hecke curve) of degree r . Recently Sun showed by an elegant argument that the Hecke curves are the only curves with this property. This leads easily to many standard results, such as Torelli, automorphism, etc. Hwang and I had also studied these rational curves using Higgs moduli. Our results are more involved, but give other results which confirm for these varieties, well known general conjectures on Fano manifolds.