

Algebraic Geometry Seminar

Semi-Orthogonal Decompositions of Moduli Spaces

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Abstract: Given a Fano manifold M with extremal contractions to Fano manifolds A and B , it is expected that the derived category of M contains two semi-orthogonal decompositions, related by the action of the braid group, which refine the semi-orthogonal decompositions of the derived categories of A and B . I will discuss strategies for proving this expectation when the Fano manifolds have moduli interpretations. As one application, we construct a semi-orthogonal decomposition of the derived category of the moduli space of stable rank 2 vector bundles on a smooth projective curve, as conjectured by Narasimhan and by Belmans, Galkin, and Mukhopadhyay.

Monday, October 7 at 3:00 PM in 636 SEO