

Julius Ross: $\hat{\wedge}$ Variation of Gieseker Moduli Spaces via Quiver GIT

There are various notions of stability for sheaves (e.g. Mumford stability, Geiseker semistability) that are important in the production of projective moduli spaces. $\hat{\wedge}$ These notions usually depend non-trivially on a choice of ample line bundle, or Kahler class and different choices give rise to different, but related, moduli spaces. $\hat{\wedge}$

In this talk I will discuss joint work with Daniel Greb and Matei Toma in which we introduce a notion of Gieseker-stability that depends on several polarisations. $\hat{\wedge}$ We use this to study the change in the moduli space of Giesker semistable sheaves on manifolds giving new results in dimensions at least three, and to study the notion of Gieseker-semistability for sheaves taken with respect to an irrational Kahler class.