

Radu Laza: Birational geometry of the moduli space of hyperelliptic quartic K3s

The study of compactifications of the moduli space of K3 surfaces is a problem of great interest. For low degree cases, E. Looijenga has constructed a framework that provides a comparison between the two naturally available compactifications in this case: GIT and Baily-Borel. In this talk, I will discuss an enrichment of this picture, essentially a continuous interpolation between the GIT and BB models. While the discussion will be mostly concerned with the case of hyperelliptic quartic K3 surfaces, we expect such an interpolation to hold quite generally. This is inspired and quite analogous to the Hassett-Keel program that studies the birational geometry of the moduli space \bar{M}_g of curves. This is a report on joint work with K. Ørskov Grady.