

Algebraic Geometry Seminar

K-moduli of curves on a quadric surface

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Abstract: I will discuss compactifications of the moduli space of (d,d) curves on $P^1 \times P^1$, focusing in particular on the case $d = 4$. We regard such a curve as a log Fano pair $(P^1 \times P^1, aC)$, where a is a rational number, and study the compactifications coming from K stability and establish a wall crossing framework as a varies. In the case $d = 4$, Laza and O'Grady show that one can interpolate between the GIT moduli space of $(4,4)$ curves and a Baily-Borel compactification of degree 4 K3 surfaces with a series of explicit VGIT wall crossings. We show that these VGIT walls coincide exactly with the K moduli walls described above. This is joint work with Kenneth Ascher and Yuchen Liu.

Monday, February 24 at 4:00 PM in 427 SEO