

Algebraic Geometry Seminar

Finiteness and Boundedness

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Abstract: The Kawamata–Morrison cone conjecture is a long-standing problem in birational geometry. Totaro generalized the conjecture and proved it for klt Calabi–Yau pairs in dimension two. The conjecture predicts that such a pair has only finitely many birational contractions modulo its automorphism group. I will explain that the finiteness of the targets of these contractions follows once they admit polarizations of bounded degree. In dimension two, this provides a new proof of the generalized Kawamata–Matsuki conjecture on the finiteness (up to log isomorphism) of weak log canonical models within a birational class.

Monday, January 12 at 3:00 PM in 636 SEO