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*Continuity of extremal transitions and flops for Calabi-Yau manifolds*

Abstract: We will discuss metric behavior of Ricci-flat Kähler metrics on Calabi-Yau manifolds under algebraic geometric surgeries: extremal transitions or flops. We will prove a version of Candelas and de la Ossa's conjecture: Ricci-flat Calabi-Yau manifolds related via extremal transitions and flops can be connected by a path consisting of continuous families of Ricci-flat Calabi-Yau manifolds and a compact metric space in the Gromov-Hausdorff topology. This is joint work with Yuguang Zhang.