

Carolina Araujo, November 19, 2021

Title: Birational geometry of Calabi-Yau pairs

Abstract: Recently, Oguiso addressed the following question, attributed to Gizatullin: “Which automorphisms of a smooth quartic K3 surface $D \subset \mathbb{P}^3$ are induced by Cremona transformations of the ambient space \mathbb{P}^3 ?” When $D \subset \mathbb{P}^3$ is a quartic surface, (\mathbb{P}^3, D) is an example of a *Calabi-Yau pair*, that is, a pair (X, D) consisting of a normal projective variety X and an effective Weil divisor D on X such that $K_X + D \sim 0$. In this talk, I will explain a general framework to study the birational geometry of mildly singular Calabi-Yau pairs. This is a joint work with Alessio Corti and Alex Massarenti.