Séminaire d'algèbre, topologie et géométrie
Jeudi 3 février à 14h
Salle Fizeau

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LJAD

Finite quotients of abelian varieties and their resolutions

Varieties with trivial canonical class are classified up to finite (quasi)étale cover : The Beauville-Bogomolov theorem decomposes any of them as a product of an abelian variety, irreducible holomorphic symplectic varieties and Calabi-Yau varieties. These three types of varieties are defined in terms of available global holomorphic forms on a variety and all of its finite (quasi)étale covers. In the first part of this talk, we present examples of hybrids : Finite quotients of abelian varieties with an algebra of global holomorphic forms of irreducible holomorphic symplectic or Calabi-Yau type. In the second part of this talk, we focus on one class of examples presented, namely finite quotients of abelian varieties by an action free in codimension 2 that admit a smooth Calabi-Yau resolution. We give birational motivations to study this particular class of Calabi-Yau varieties, and classify them in dimension 3 and 4.