

Séminaire d'algèbre, topologie et géométrie
Jeudi 10 novembre à 14h
Salle de conférences

Martina Monti

Milano et Poitiers

*Family of Calabi-Yau 3-folds of type A with the dihedral group
D4 of order 8*

In dimension higher than 2 there exist Calabi-Yau manifolds with infinite fundamental group, e.g. they can be constructed as the quotient of an Abelian variety A by a free action of a finite group G . In this context, we consider the family of Calabi-Yau 3-folds given as the quotient of an Abelian 3-fold by free action of the dihedral group D_4 of order 8. Catanese and Demleitner proved that this family is irreducible and 2-dimensional. In this talk, I will present some of my results concerning the study of the geometry of this family. In particular, I will give a description of the Picard group of these manifolds and I will study some divisors on them. Then, I will give a complete characterization of the full automorphism group of these manifolds and describe all the possible quotients.