

Andrea Fanelli (Imperial College) ore 14
Effective Matsusaka for Surfaces in Positive Characteristic

Abstract:

The problem of determining an effective bound on the multiple which makes an ample divisor D on a smooth variety X very ample is natural and many results are known in characteristic zero. In this talk, based on a joint paper with Gabriele Di Cerbo, I will discuss this problem on surfaces in positive characteristic, giving a complete solution in this setting. Our strategy requires an ad hoc study of pathological surfaces, on which Kodaira-type theorems can fail. A Fujita-type theorem and a vanishing result for big and nef divisors on pathological surfaces will also be discussed.

Kevin Tari (Université de Poitiers) ore 15h15
Automorphisms of Generalized Kummer Varieties

Abstract:

Thanks to Torelli theorem, much is known about automorphisms of K3 surfaces from the lattice structure on their second group of cohomology. But generalizations of those works for irreducible symplectic varieties, which are higher dimensional analogues of K3 surfaces, are rather new: Torelli theorem for these varieties was proved by Markman and Verbitsky in 2011. For generalized Kummer varieties, the study of automorphisms via isometries of the Beauville-Bogomolov lattice is recent and challenging. I will present a common work with Giovanni Mongardi and Malte Wandel, where we give a classification of prime order automorphisms on generalized Kummer varieties from lattice theory.