

Séminaire d'algèbre, géométrie et topologie
Jeudi 6 avril à 14h
Salle I

Radu Laza

Stony brook

Some remarks on degenerations of Hyper-Kähler Manifolds

The key tool for understanding degenerations of K3 surfaces is the Kulikov-Persson-Pinkham theorem (a semi-stable degeneration of K3 surfaces can be modified to have trivial canonical bundle). Recent progress in MMP (with essential further contributions from Fujino) give an analogous result on higher dimensional HK manifolds.

In this talk, I will explore some geometric consequences of this result (e.g. a simplification of some proofs of deformation type for certain HK constructions, and some results on the dual complex of a semi-stable degeneration of HKs).

This is a report on joint work with J. Kollár, G. Sacca, and C. Voisin