

The cone conjecture for hyperkaehler manifolds

Ekaterina Amerik

This is a joint work with Misha Verbitsky.

We prove that the automorphism group of an irreducible holomorphic symplectic manifold has only finitely many orbits on the set of faces of its Kähler cone. This is a version of the Morrison-Kawamata cone conjecture, which in the projective case implies the classical one, namely that the automorphism group has a rational polyhedral fundamental domain on the ample cone. The crucial technical result is obtained using ergodic theory (Ratner and Mozes-Shah theorems).