

## Junyan Cao: $\hat{A}$ Kodaira dimension of algebraic fiber spaces over abelian varieties

Let  $f$  be a fibration between two projective manifolds. The Iitaka conjecture states that the Kodaira dimension of total space is not less than the sum of the Kodaira dimension of the generic fiber and that of the base manifold.  $\hat{A}$  We prove a log-version (with klt pair) of the conjecture, under the assumption that the base is an abelian variety. The proof relies mainly on the positivity properties of direct images of relative pluri-canonical bundles. This is a joint work with Mihai Păun.