Nonvanishing 1-forms on varieties admitting a good minimal model.

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Abstract

Let X be a smooth projective variety and $\omega \in H^0(X, \Omega_X^1)$ a 1-form with no zeros. A theorem of Popa and Schnell says that X is not of general type. We investigate further restrictions on the geometry of X. In particular, we show that X must be close to an isotrivial fibration over an abelian variety.