

FINDING THE KAWAMATA LOCUS OF SUBVARIETIES OF ABELIAN VARIETIES

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From the recently proved uniform Mordell-Lang theorem, we know that the number of rational points outside the Kawamata locus of subvarieties of abelian varieties is bounded in terms of the dimension of the abelian variety, the degree of the subvariety, and the Mordell-Weil rank. From this, it is an interesting problem to explicitly determine the Kawamata locus, and in fact this step is crucial in several arithmetic applications. In this talk we will focus on the case of surfaces by means of a technique coming from value distribution theory. Using this approach we will discuss applications to problems on points in elliptic curves.

Joint work with Hector Pasten (Pontificia Universidad Catolica de Chile, Chile).