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Heights on abelian varieties

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A conjecture of Lang on elliptic curves, generalized by Silverman to abelian varieties, predicts that the Neron-Tate height of a point of infinite order on a abelian variety defined over a number field should grow linearly with the differential height (or Faltings height) of the underlying group variety. Closely linked is the question of finding an uniform bound for the order of a rational torsion point. This conjecture has natural generalizations to higher dimensional subvarieties of abelian varieties and to global fields. After describing the set up, we shall concentrate on the function field situation and report on a work in progress with A. Pacheco.
