

SHARP HEIGHT ESTIMATES FOR ELLIPTIC CURVES

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ABSTRACT

In this seminar, we define different heights for points on elliptic curves and present new results concerning them.

Bounds for these heights, and their differences, are important for our understanding of points on elliptic curves and also for their applications, which extend to many parts of number theory. We present some new sharp results (joint work with Yabuta) for such bounds for elliptic curves of the form $y^2 = x^3 + ax$ and $y^2 = x^3 + b$ as well as mentioning ongoing more general work.