

# NUMBER THEORY SEMINAR

## *Sharp height estimates for elliptic curves*

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WHEN: Wed 10 Sep. 2014, 3:30 p.m.

WHERE: Chase 319

ABSTRACT:

Heights are measures of the “arithmetic complexity” of number theoretic objects. In this seminar, we examine two natural and well-known heights for points on elliptic curves. 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 results, which are best-possible, on 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. This is joint work with Minoru Yabuta.

Any questions, please e-mail: [rnoble@mathstat.dal.ca](mailto:rnoble@mathstat.dal.ca).