

p-adic Heights of Heegner Points

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Abstract

I will describe work in progress towards a general formula for the p-adic heights of Heegner points on Shimura curves in the spirit of the work of Yuan-Zhang-Zhang on the Gross-Zagier formula; this generalizes work of Perrin-Riou, Kobayashi, Howard and myself. The formula can be applied to study the Birch and Swinnerton-Dyer conjecture and the anticyclotomic Iwasawa theory of modular abelian varieties.