

Heights on hyperelliptic curves

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Abstract

We introduce the notion of heights in Diophantine geometry by first considering the canonical height pairing on an elliptic curve. We discuss the role it plays in the Birch and Swinnerton-Dyer (BSD) conjecture and use this to motivate a discussion of p -adic heights and the p -adic BSD conjecture. We will then describe recent joint work with Amnon Besser on computing p -adic heights on Jacobians of hyperelliptic curves.