

Title: Quantitative equidistribution of small points on elliptic curves.

Abstract: Let E/k be an elliptic curve over a number field, and let v be a place of k . I will briefly describe the Berkovich analytic space associated to $E(\mathbb{C}_v)$. Then I will talk about joint work with Matt Baker in which we prove a quantitative equidistribution theorem for small points on E . In the archimedean setting this gives a new proof of the Szpiro-Ullmo-Zhang theorem (for elliptic curves); in the non-archimedean case the equidistribution takes place on the Berkovich space, and it generalizes a result of Chambert-Loir. Our methods are quantitative, and so we get some explicit lower bounds on the height of certain “non-equidistributed” points, such as totally real or p -adic points, or points defined over the maximal cyclotomic extension of k .