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Quantitative uniform distribution of points of small height on the projective line. (Equidistribution quantitative des points de petite hauteur sur la droite projective.)  

Summary: We introduce a new class of adelic heights on the projective line. We estimate their essential minimum and prove a result of uniform distribution (at every place) for points of small height with estimates on the speed of convergence. To each rational function \( R \) in one variable and defined over a number field \( K \), is associated a normalized height on the algebraic closure of \( K \). We show that these dynamically defined heights are adelic in our sense, and deduce from this uniform distribution results for preimages of points under \( R \) at every place of \( K \). Our approach follows that of Bilu, and relies on potential theory in the complex plane, as well as in the Berkovich space associated to the projective line over \( \mathbb{C}_p \), for each prime \( p \).

MSC:  
11G50 Heights  
37F10 Dynamics of complex polynomials, rational maps, entire and meromorphic functions; Fatou and Julia sets

Full Text: DOI

References:

References cited in zbMATH: 14 Reviews
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