

Abstract: Let k be a number field and \bar{k} an algebraic closure of k . Write $\mathbb{P}^n(k; d)$ for the set of points $P = (x_0 : \dots : x_n)$ in $\mathbb{P}^n(\bar{k})$ which have degree d over k . The distribution of points in $\mathbb{P}^n(k; d)$ is best described in terms of their height H . Let X be a real number; a well-known result of Northcott implies that the subset of $\mathbb{P}^n(k; d)$ defined by $H(P) < X$ is finite. The central problem consists in finding an asymptotic estimate for the cardinality of this set as X tends to infinity. A classical Theorem of Schanuel from 1979 gives the asymptotics for $d = 1$. Schmidt (1995), Gao (1996) and more recently Masser, Vaaler (2007) found asymptotic estimates for $d > 1$. Masser and Vaaler's result then covers all cases with $n = 1$; but if k is not the field of rational numbers and n, d are both greater than one not a single example for the asymptotics was known up to now. We present a result which covers the cases $n > 5d/2 + 4$ for arbitrary number fields k .