

1056-11-1035

Behailu Mammo* (matbzm@hofstra.edu), 153 Lenox Ave, Uniondale, NY 11553. *On the density of discriminants of abelian extensions of a number field.*

For a number field K , let $N(K, G; m)$ denote the number of abelian extensions L of K with Galois group $G(L/K)$ isomorphic to $G = \mathbb{Z}/2\mathbb{Z} \times \mathbb{Z}/2\mathbb{Z}$ and the relative discriminant $D(L/K)$ of norm equal to m . The main object of this talk is to derive an explicit asymptotic formula for $\sum_{m \leq X} N(K, \mathbb{Z}/2\mathbb{Z} \times \mathbb{Z}/2\mathbb{Z}; m)$. (Received September 20, 2009)