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Behailu Mammo* (matbzm@hofstra.edu), 108 Adams Hall, 103 Hofstra University, Hempstead, NY 11549. *An Asymptotic Formula for the Number of Abelian Extensions of a Number Field.*

Let $G = C_\ell \times C_\ell$ denote the product of two cyclic groups of prime order ℓ , and K be an algebraic number field. Let $N(K, G, m)$ denote the number of abelian extensions L of K with Galois group $G(L/K)$ isomorphic to G , and the relative discriminant $D(L/K)$ of norm equal to m . In this talk, we will derive an asymptotic formula for $\sum_{m \leq X} N(K, G, m)$. (Received September 19, 2007)