1102-11-151 **Arindam Roy***, Department of Mathematics, Urbana, IL 61801. *Zeros of partial sums of the Dedekind zeta function of a Galois extension.*

We study the zeros of the partial sums of the Dedekind zeta function of a Galois extension K defined by the truncated Dirichlet series

$$\zeta_{K,X}(s) = \sum_{\|\mathfrak{a}\| \leq X} \frac{1}{\|\mathfrak{a}\|^s},$$

where the sum is to be taken over nonzero integral ideals $\mathfrak{a}$ of K and $\|\mathfrak{a}\|$ denotes the absolute norm of $\mathfrak{a}$. Specifically, we estimate the number of zeros of $\zeta_{K,X}(s)$ up to height T. We also study the zero density results for the truncated sum

$$\zeta_{K,X}(s) + B^{2s-1}\frac{A(1-s)}{A(s)}\zeta_{K,X}(1-s),$$

where $A(s) = \Gamma^{r_1}(s/2)\Gamma^{r_2}(s)$, $B = 2^{r_2}\pi^{n_0/2}/\sqrt{|d_K|}$, $r = r_1 + r_2$ (with r_1 being the number of real embeddings and r_2 being the number of complex conjugate pairs of complex embeddings of K), $n_0 = [K\colon \mathbb{Q}]$ denotes the degree of $K/\mathbb{Q}$, and d_K denotes the discriminant of K. (Received July 27, 2014)