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*The least prime in a conjugacy class*

Let  $K$  be a number field with the discriminant  $d_K$  with its Galois closure  $\hat{K}$ . Let  $C$  be a conjugacy class of  $Gal(\hat{K}/\mathbb{Q})$ . Let  $n_{K,C}$  be the least prime  $p$  which is ramified or whose Frobenius automorphism  $\text{Frob}_p$  does not belong to  $C$ . Then under GRH,  $n_{K,C}$  is  $O((\log |d_K|)^2)$ . We prove two unconditional results regarding  $n_{K,C}$ . First, the average of  $n_{K,C}$  in a family of  $S_n$ -fields ( $n = 3, 4, 5$ ) is a constant. Second, in a family of  $S_n$ -fields ( $n = 3, 4, 5$ ), except for a density zero set,  $n_{K,C} = O(\log |d_K|)$ .