1086-11-1634   **Paul Pollack*** (`pollack@uga.edu`), Boyd Graduate Studies Research Center, Mathematics Department, UGA, Athens, GA 30602. *The smallest prime with a given splitting type in an abelian number field.*

Let $K/\mathbf{Q}$ be a finite, abelian extension. We describe a method, developed out of work of Linnik–Vinogradov and Elliott, for bounding above the smallest rational prime that is unramified and splits into a given number of distinct prime ideals in $\mathcal{O}_K$. One corollary is that for each $\epsilon > 0$, the smallest prime that splits completely in K is $O_{n,\epsilon}(|D|^{\frac{1}{4}+\epsilon})$, where n denotes the degree of $K/\mathbf{Q}$ and D denotes its discriminant. We also give some applications to computing average prime-splitting statistics for families of number fields. (Received September 23, 2012)