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A bound for the least prime ideal in the Chebotarev density theorem

In their famous article of 1979 Lagarias, Montgomery and Odlyzko gave a bound for the least prime ideal in the Chebotarev Density Theorem. In 2017 Zaman proved an effective version of their theorem: given K a number field, L/K a finite Galois extension, for every conjugacy class C of $Gal(L/K)$, there exists a prime ideal $\mathfrak{p}$ of K unramified in L, for which its Artin symbol $[\frac{L/K}{\mathfrak{p}}] = C$, and for which its norm $N_{\mathbb{Q}}^{K}\mathfrak{p}$ is a rational prime, which satisfies $N_{\mathbb{Q}}^{K}\mathfrak{p} \ll d_{L}^{40}$. In this talk we present an improved Deuring-Heilbronn phenomenon for the Dedekind zeta function and as a consequence we are able to reduce Zaman's bound. This is joint work with Nathan Ng and Peng-Jie Wong.