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*Heuristics on distributions of Galois groups of unramified extensions.*

We will first review several heuristics on the distributions of Galois groups of unramified extensions of global fields, which include the Cohen-Lenstra Heuristics regarding the class groups of quadratic fields and the Boston-Bush-Hajir Heuristics regarding the  $p$ -class tower groups of quadratic fields. We will then discuss how these heuristics relate to reasonable random group models, and then explain a new conjecture on the distributions of the Galois groups of the maximal unramified extensions of Galois  $\Gamma$  number fields or function fields for a large family of finite groups  $\Gamma$ . Finally, we will give theorems in the function field case to support this new conjecture. This work is joint with Melanie Matchett Wood and David Zureick-Brown. (Received September 02, 2019)