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Nigel Boston* (boston@math.wisc.edu), Department of Mathematics, University of Wisconsin, Madison, WI 53706. *Heuristics on Pro-p Groups arising as Galois Groups*. Preliminary report.

In work with Ellenberg and Venkatesh, the speaker gave a heuristic for how often a given finite g -generator g -relator pro- p group arises as the Galois group of the maximal pro- p extension of \mathbb{Q} unramified outside g random primes. In this talk we consider generalizations to infinite pro- p groups and to imaginary quadratic fields, which introduce new phenomena. (Received August 24, 2009)