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Yuan Liu* (yliu@math.wisc.edu). *A Non-abelian Version of the Cohen-Lenstra Probability Measure.*

We construct a model of random groups that is a non-abelian version of the random groups that feature in the Cohen-Lenstra heuristics. This random group is obtained from, as n goes to infinity, the free group on n generators modulo $n+u$ random relations. In this talk, we will use this model to define a probability measure on the space of profinite groups and discuss known results about the distribution of non-abelian analogs of class groups that motivate our work. This is a joint work with Melanie Metchatt Wood. (Received February 20, 2018)