1086-12-2430 **Benjamin L Weiss*** (bweiss@bates.edu), Department of Mathematics, Hathorn Hall, Lewiston, ME 04140, and **Jeffrey C Lagarias**. *Splitting Behavior of Primes in S_n Extensions of $\mathbb{Q}$.* Preliminary report.

We will discuss the analysis of the probability that a random, monic, degree n polynomial in $\mathbb{Z}[x]$ with coefficients in a box of side B has splitting field with Galois group S_n and has prescribed Artin symbols (and is unramified) at finitely many given primes. The resulting distribution will be compared to conjectures of M. Bhargava (which are theorems for $n \leq 5$) asserting for any fixed prime p the proportion of number fields of degree n having Galois closure with group S_n and discriminant less than x with prescribed Artin symbol at p will have limiting density agreeing with the Chebotarev density theorem. (Received September 25, 2012)