1056-11-789   **Ethan C. Smith*** (`ethans@mtu.edu`), Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931, and **Kevin James** (`kevja@clemson.edu`), Mathematical Sciences, Clemson University, Box 340975, Clemson, SC 29634-0975. *Average Frobenius distribution for elliptic curves defined over number fields.*

Given an integer r and an elliptic curve E, the fixed trace Lang-Trotter Conjecture concerns the number of primes p up to x with trace of Frobenius $a_p(E)$ equal to r. In this talk, we will discuss a generalization of the conjecture to the setting of number fields and a result that says this conjecture is true "on average" when the number field is Galois over the rationals. A key ingredient in the proof is the computation of a certain weighted sum of special values of Dirichlet L-functions. This work builds on previous papers by Fouvry and Murty, David and Pappalardi, and recently by Faulkner, James, King, and Penniston. This is joint work with Kevin James. (Received September 17, 2009)