Title: Measures induced by words on GLn(q) and free group algebras

Abstract:

Fix a finite field K and a word w in a free group F. A w-random element in GLn(K) is obtained by substituting the letters of w with uniform random elements of GLn(K). For example, if w = abab^-2, a w-random element is ghgh^-2 with g,h independent and uniformly random in GLn(K). The moments of w-random elements reveal a surprising structure which relates to the free group algebra K[F].

In this talk I will describe what we know about this structure and draw some analogies to w-random permutations.

This is joint work with Prof. Doron Puder and Matan Seidel.