

February 22: Aner Shalev (Hebrew University), “Groups of Lie type, characters, and a Waring type theorem.” FOLLOWED BY DINNER.

Let G be a finite simple group of Lie type. Following Witten (for Lie groups) we define a ‘zeta function’ encoding character degrees by $\zeta_G(s) = \sum_{\chi} \chi(1)^{-s}$. We will start by briefly surveying properties of ζ_G , and a variety of recent applications (to subgroup growth, random walks, Riemann surfaces, and representation varieties). We will then focus on non-commutative Waring type problems, where we represent G as a small power of the image $w(G)$ of a group word w .