ALEXANDER SLAMEN, University of Toronto

A Twisted Variant of Malle's Conjecture

This talk is based on joint work with Brandon Alberts, Helen Grundman, Shilpi Mandal, and Amanda Tucker. Malle's conjecture predicts an asymptotic growth rate for the count of number fields (with a particular Galois group) ordered by discriminant. In the twisted variant, we further stratify the count by demanding that certain fields arise as fixed subfields. This is "twisted" because such extensions are parametrized by particular Galois cohomologies with twisted coefficients. In this talk, I will explore Galois cohomological and embedding-theoretic approaches to the twisted form of Malle's conjecture. We focus on the case of D_8-fields with particular quadratic field fixed by D_4.