

DREXEL ANALYSIS SEMINAR

November 11, 2016

2-2:50 PM, Korman 245

Speaker: Lechao Xiao (U Penn)

Title: Sharp Estimates for some Multilinear Oscillatory Integrals

Abstract: One basic problem in algebra is finding roots for a polynomial. A central topic in modern harmonic analysis is finding (sharp) estimates for various oscillatory integrals. In the 17th century, Newton introduced a method, known as Newton–Puiseux algorithm, for solving a polynomial $f(x, y) = 0$ by a fractional power series, $y = y(x^{\frac{1}{m}})$. In this talk, we will illustrate how one can upgrade this algorithm to find sharp estimates for some oscillatory integrals.