Pumagrass
October 9, 2020

Speaker: Jonathan Tidor
Title: Roth's Theorem in F_3^n

Abstract

In this talk, I'll introduce you to the (relatively) new and (extremely) exciting field of additive combinatorics. I will present a classical result, (Meshulam's proof of) Roth's theorem (in F_3^n). The proof will introduce an important tool in the field, discrete Fourier analysis, which is the strange cousin of classical Fourier analysis. I'll also try to convey how additive combinatorialists think about problems including the so-called "structure versus pseudorandomness dichotomy".