METU Mathematics General Seminar

Counting Arithmetic Progressions in Finite Rings

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Abstract

Finding arbitrarily long arithmetic progressions in certain subsets of the integers has become one of the most important problems in mathematics over the last century. One of the most famous results in this area was proved by Szemerédi in 1975, and it states that every subset of the positive integers with positive upper density contains arbitrarily long arithmetic progression. In this talk, we will discuss some results concerning the number of 3-term arithmetic progressions in certain subsets of finite rings using finite Fourier analysis.

Date: Thursday, 26 February 2026
Time: 15:40
Place: Gündüz İkeda Seminar Room