

Charles Wolf (Rutgers)

The Polynomial Method and the Finite-Field Kakeya Problem

Abstract for the Combinatorics Seminar 2017 March 21

A finite-field Kakeya set is a subset of $(\mathbb{F}_q)^n$ (the n -dimensional vector space over a finite field of order q) which contains a line in each direction. I will first show how to use polynomials to obtain bounds on the size of a Kakeya set in finite vector spaces. Then I will show how to modify this polynomial technique to obtain better bounds on the size of these Kakeya sets. Time permitting, I will discuss bounds on related incidence problems.

From:

<https://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematics and Statistics**

Permanent link:

<https://www2.math.binghamton.edu/p/seminars/comb/abstract.201703wol>

Last update: **2020/01/29 19:03**

