

СЕКЦИЯ

„АЛГЕБРА И ЛОГИКА”

Уважаеми колеги,

На 24 април 2026 г. (петък) от 13:00 часа в зала 578 на ИМИ-БАН и онлайн чрез платформата zoom ще се проведе хибридно заседание на семинара по Алгебра и логика.

Доклад на тема

Sets preserved by a large subgroup of the special linear group

ще изнесе

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От секция „Алгебра и логика” на ИМИ – БАН

<https://www.math.bas.bg/algebra/seminarAiL/>

Abstract:

The classical Kakeya problem in Euclidean space asks how "small" a set can be if it contains a unit line segment in every direction. More generally, packing sets contain all images of a given set under a collection of transformations. Finite field analogues offer a combinatorial and algebraic perspective and motivate our work.

We study sets E in the affine plane over a finite field that are invariant under a large subgroup R of SL_2 . We prove that if $|R| > c|E|^{3/2}$, then E must be contained in a line. The exponent $3/2$ is sharp. We conclude with a remark on a related phenomenon in the Euclidean setting. This is joint work with Thang Pham and Le Quang-Hung.