

Department of Mathematics, BGU

AGNT

On Wednesday, December ,4 2024

At 14:10 – 15:10

In 101-

Yotam Hendel (BGU)

will talk about

On uniform dimension growth bounds for rational points on algebraic varieties

Abstract: Let X be an integral projective variety defined over \mathbb{Q} of degree at least 2 and $B < 0$ an integer. The (uniform) dimension growth conjecture, now proven in almost all cases following works of Browning, Heath-Brown and Salberger, provides a uniform upper bound on the number of rational points of height at most B lying on X , where the bound depends only on the degree of X , the dimension of its ambient space, and on B .

In this talk, I will report on current developments which go beyond classical uniform dimension growth bounds, focusing on an affine variant (which implies the projective one).

This is based on joint work with Cluckers, Dèbes, Nguyen and Vermeulen.