המחלקה למתמטיקה, בן-גוריון

גאומטריה אלגברית ותורת המספרים

ביוני *21, 2017*

בשעה *15:10 – 16:30*

בMath- *101*

ההרצאה

groups arithmetic of representations Counting schemes of points and

תינתן על-ידי

(Weizmann) Aizenbud Avraham

תקציר:

Ben Gurion University – Mathematics

Algebraic Geometry and Number Theory Seminar

Speaker	**Avraham Aizenbud (Weizmann)**
Title	**Counting representations of arithmetic groups and points of schemes**
Date	Wednesday, 21 June 2017
Time	15:10 – 16:30 (starts 15:10 sharp)
Location	Room -101 in Building 58

Abstract

We will discuss the following question: How many irreducible representations of a given dimension n do groups like SLd(Z) have? We will see how this question is related to the number of Z/nZ-points of certain schemes. Those are related to singularities of moduli spaces, pushforward of smooth measures, commutators of random elements in finite groups, jet schemes and more. As a result of those connections, we will show that the number of such representations is bounded by a polynomial in n whose degree is universally bounded for high rank arithmetic groups (by 40). See slides on http://aizenbud.org/5Talks/Rep_count_tallk_glob_long.pdf
This is a joint project with Nir Avni.

(updated 19 June 2017)