

Department of Mathematics, BGU

Algebraic Geometry and Number Theory

On Wednesday, January ,18 2017

At 15:10 – 16:30

In Math 101-

Leonid Positselski (Hafia)

will talk about

Tilting-cotilting correspondence

Abstract:



Ben Gurion University - Mathematics
Algebraic Geometry and Number Theory Seminar

Speaker **Leonid Positselski (Haifa)**

Title **Tilting-cotilting correspondence**

Date Wednesday, 18 January 2017

Time 15:10 - 16:30 (starts 15:10 sharp)

Location Room -101 in Building 58

Abstract

I will explain the following abstract formulation of the tilting theory. Complete, cocomplete abelian categories A with an injective cogenerator J and a big n -tilting object T correspond bijectively to complete, cocomplete abelian categories B with a projective generator P and a big n -cotilting object W . The (bounded or unbounded) derived categories of A and B are naturally equivalent. When A is a locally finitely presentable abelian category (e.g., the category of modules over an associative ring), B can be described as the category of contramodules over a topological associative ring. Time permitting, I may also say a few words about the $n = \infty$ case.

(updated 1 Jan 2017)