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THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE  
Algebraic Geometry and Representation Theory Seminar

Room 155 ,Ziskind Building  
on Tuesday, May 29, 2018at 11:15

Max Gurevich Singapore

**Branching laws for non-generic representations**

Abstract:

The celebrated Gan-Gross-Prasad conjectures aim to describe the branching behavior of representations of classical groups, i.e., the decomposition of irreducible representations when restricted to a lower rank subgroup.

These conjectures, whose global/automorphic version bear significance in number theory, have thus far been formulated and resolved for the generic case.

In this talk, I will present a newly formulated rule in the  $p$ -adic setting (again conjectured by G-G-P) for restriction of representations in non-generic Arthur packets of  $GL_n$ .

Progress towards the proof of the new rule takes the problem into the rapidly developing subject of quantum affine algebras. These techniques use a version of the Schur-Weyl duality for affine Hecke algebras, combined with new combinatorial information on parabolic induction extracted by Lapid-Minguez.