



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 290C ,Ziskind Building
on Wednesday, Jan 03, 2018
at 11:15

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Characters of inadmissible representations

Abstract:

Given a p -adic group G , number theorists are interested in producing admissible representations of G : representations which have a well-defined character functional. One way to produce such representations is by "Jacquet induction" from smaller groups, whose characters can be understood inductively. The complementary space of "new" characters which are not obtained by induction (complementary with respect to a natural metric on the space of characters) is given by what is called "elliptic" characters. Given a representation V of G , the "new" input from its character is captured by the operator $Ax(V)$, with A (the Bernstein-Deligne-Kazhdan A -operator) the projector to the elliptic component (note that this is different from the component of the character lattice valued in elliptic elements). I will talk about my ongoing work with Xuhua He on extending this operator to a trace functional $Ax(V)$ for V a finitely-generated representation (whose Grothendieck group is well understood), which works by first constructing a virtual elliptic admissible representation from any finitely generated representation.