



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

on Wednesday, Dec 02, 2020
at 16:30

[HTTPS://WEIZMANN.ZOOM.US/J/98304397425](https://weizmann.zoom.us/j/98304397425)

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Selfdual cuspidal representations of $GL(r,D)$ and distinction by an inner involution

Abstract:

Let n be a positive integer, F be a non-Archimedean locally compact field of odd residue characteristic p and G be an inner form of $GL(2n,F)$. This is a group of the form $GL(r,D)$ for a positive integer r and division F -algebra D of reduced degree d such that $rd=2n$. Let K be a quadratic extension of F in the algebra of matrices of size r with coefficients in D , and H be its centralizer in G . We study selfdual cuspidal representations of G and their distinction by H , that is, the existence of a nonzero H -invariant linear form on such representations, from the viewpoint of type theory. When F has characteristic 0, we characterize distinction by H for cuspidal representations of G in terms of their Langlands parameter, proving in this case a conjecture by Prasad and Takloo-Bighash.

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