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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 Wednesday, Jun 16, 2021at 16:30

<https://weizmann.zoom.us/j/98304397425>  
Dor Mezer Weizmann Inst. of Science

Multiplicity one theorems over positive characteristic

Abstract:

We will discuss the recent proof of the strong Gelfand property over local fields of positive odd characteristic for the Gan-Gross-Prasad pairs. These pairs of groups include  $(GL(n), GL(n+1)), (O(n), O(n+1)), (U(n), U(n+1)), (SO(n), SO(n+1))$ , as well as Fourier-Jacobi pairs such as the symplectic group inside its semi-direct product with the corresponding Heisenberg group. The strong Gelfand property for these pairs has important consequences in the theory of automorphic representations, showing the uniqueness of Bessel models, of Rankin-Selberg models, and of Fourier-Jacobi models. These results were proven over characteristic 0 local fields (both archimedean and p-adic) 10-14 years ago, and extensively used since then. As in the characteristic zero case, we will use the method of Gelfand and Kazhdan, which reduces the theorems to statements on invariant distributions.