

abstract

SHORT TALKS BY POSTDOCTORAL MEMBERS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

First I will present a geometric method, due to Kazhdan, of approximating representation theory of reductive groups over local fields of positive characteristic (like $F_p(t)$) with representation theory of reductive groups over local fields of zero characteristic (like the field \mathbb{Q}_p of p -adic numbers).

Then I will present a generalization of this method to "representation theory of pairs of groups", due to Aizenbud, Avni and myself.

As an application we show that $(GL(n+1, F), GL(n, F))$ is a strong Gelfand pair for all local fields F of positive characteristic. This means that the restriction to $GL(n, F)$ of every irreducible smooth representation of $GL(n+1, F)$ "decomposes" with multiplicity one. We use our method to deduce this from the zero characteristic case, which was proven two years ago by Aizenbud, myself, Rallis and Schiffmann.