

Hidden Symmetries of Invariant Distributions and representation theory.

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Abstract.

In this talk I will give a historical account of a series of results about invariant distributions and their applications to representation theory.

First I discuss the case of finite groups and show the applications of Gelfand's trick (introduced in 1950) to representation theory.

Then I discuss modifications of Gelfand's method due to Gelfand and Kazhdan which allow to establish similar results for groups over real and p -adic fields.

I will finish with a description of the recent proof of the multiplicity one conjecture by A.Aizenbud, D.Gourevitch, S.Rallis and G.Schiffmann.