
THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
Algebraic Geometry and Representation Theory Seminar

on Wednesday, Mar 02, 2022 at 17:00

The seminar will be only in Zoom: <https://weizmann.zoom.us/j/98304397425>
Nadya Gurevich BGU

Gelfand-Graev representation for covering groups and applications (joint work with Edmund Karasiewicz and Fan Gao)

Abstract:

The multiplicity one theorem for the Whittaker model, being such a useful tool in the representation theory of linear groups, fails for covering groups. Gelfand-Graev representation V of a linear or covering group G admits any irreducible generic smooth representation as a quotient. We study the space of Iwahori-fixed vectors of V for the case G is a covering group, and present several applications of the description, among them 1. determination of dimensions of Whittaker spaces of constituents of principal series (regular and unitary cases) 2. conceptual construction of Chinta-Gunnells action. 3. recursive relations for the spherical Whittaker function.