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

on Wednesday, May 25, 2022 at 17:00

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On tempered representations

Abstract:

Given a locally compact group G , the decomposition of the space of square integrable functions on G into irreducible unitary representations of G ("irreps") is one of the basic desires in harmonic analysis. Not all irreps appear in such a decomposition; those which do are called tempered. The decomposition has a discrete as well as a continuous parts; the irreps which appear in the discrete part are called square integrable, and are much simpler analytically than general tempered irreps. Loosely speaking, tempered irreps can be thought of as "on the verge" of being square integrable. Although this intuition is rather classical, we discuss a new possible formal interpretation of it. This is joint work with D. Kazhdan.