

Abstract

Oberwolfach Workshop:

Representations of p -adic Groups

Dates:

1 Dec - 6 Dec 2024 (Code: 2449)

Organizers:

Jessica Fintzen, Bonn

David Schwein, Bonn

Maarten Solleveld, Nijmegen

Representation theory of p -adic groups is a topic at crossroads. It links among others to harmonic analysis, algebraic geometry, number theory, Lie theory, and homological algebra. The atomic objects in the theory are supercuspidal representations. Most of their aspects have a strong arithmetic flavour, related to Galois groups of local fields. All other representations are built from these atoms by parabolic induction, whose study involves Hecke algebras and complex algebraic geometry. In the local Langlands program, connections between various aspects of representations of p -adic groups have been conjectured and avidly studied.

This workshop brings together mathematicians from various backgrounds, who hold the promise to contribute to the solution of open problems in the representation theory of p -adic groups. Topics will include explicit local Langlands correspondences, Hecke algebras for Bernstein components, harmonic analysis, covering groups and ℓ -modular representations of reductive p -adic groups.