

Representations of reductive groups and Galois representations

Claudia Schoemann

Georg-August-Universität Göttingen

We consider representations of connected reductive algebraic groups defined over a non-archimedean local field. The Local Langlands correspondence allows the transfer to representations of the local Galois groups preserving structure and certain properties. We then consider the global case where much information is encoded in the pair of an automorphic representation/ modular form and an elliptic curve, with the goal to deduce information about the local and global Galois groups and their representations.

In Special Session 14 on Galois Representations and Automorphic Forms at the Mathematical Congress of the Americas 2025.