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The role of the geometry of Shimura varieties in the Langlands' conjectures

ABSTRACT

The conjectures of Langlands that I will talk about relate two a priori rather different kinds of objects: Galois representations and automorphic representations. In some cases, one can hope to realize the Langlands' correspondences geometrically, in the cohomology of the Shimura varieties. For a class of simple Shimura varieties, I will try to explain how some aspects of the geometry of these varieties reflect in the Langlands' correspondences.