

Unitary representations of reductive p -adic groups

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A unitary representation of a reductive group G (like the general linear group or the symplectic group) is a continuous homomorphism π from G to the group of unitary operators on a complex Hilbert space. The study of unitary representations when the group G is defined over a p -adic field is mainly motivated by questions from number theory. I will present some results about the classification of unitary representations in this setting, and in particular, explain the complete description for an important class of representations, namely the spherical representations.