Abstract

Let G be a quasi-split form of a symplectic, unitary or orthogonal group defined over a non-archimedean local field of odd residue characteristic.

Every smooth irreducible representation of a p-adic classical group G contains a semisimple character, a certain arithmetic character which is suitable for the study and handling of the category for smooth representations of G. (These characters were introduced by Bushnell--Kutzko and Stevens) Two of those characters contained in the same irreducible representation intertwine.

In the flavor of Bushnell--Henniart (local tame lifting) we generalize the notion of Endo--equivalence from simple characters to semisimple characters and parametrize intertwining classes of semisimple characters for G using new developed parameters, the so-called endo-parameters.