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An intertwining relation via Takeda-Wood isomorphism

Abstract : For  $p$ -adic local fields of characteristic not equal to 2, but with no constraint on  $p$ , Takeda and Wood obtained an isomorphism between the Iwahori-Hecke algebra of  $SO(2n+1)$  and the Hecke algebra of  $Mp(2n)$  for the Bernstein component containing the even Weil representation; for the odd component one takes the non-split inner form of  $SO(2n+1)$  instead. I will try to explain how their isomorphism behaves under parabolic induction, whose proof is not entirely trivial. Then I will sketch a Gindikin-Karpelevich formula for  $Mp(2n)$  that applies to dyadic local fields as well. The motivation comes from Arthur's local intertwining relation for  $Mp(2n)$ , which becomes "wild" when  $p = 2$ . This is a joint work with Fei Chen.