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Title: On the local Jiang's conjecture for Arthur packets

Abstract: This is a report on my joint work with Baiying Liu on Jiang's conjecture. This conjecture generalizes my conjecture on tempered L-packets which I proposed in my 1990 Annals paper, to Arthur packets, by suggesting candidates for wave front sets of members of the A-packet, via Barbasch-Vogan duality for classical groups. We establish several cases of the conjecture, under a natural conjecture for the wave front sets of the bitorsor representations attached to $GL(N)$. This is done via Arthur's character identities established in his work on endoscopic transfer from classical groups to $GL(n)$ and combinatorial dimension calculations for nilpotent orbits. The groups under consideration are split $Sp(2n)$ and $SO(2n+1)$, as well as quasi-split forms of $SO(2n)$ defined by quadratic extensions.