Degenerate Whittaker functionals for real reductive groups
Siddhartha Sahi, Rutgers University

Let $\pi$ be a smooth admissible representation of a quasi-split real reductive group. A Whittaker functional on $\pi$ is a continuous functional that transforms by a non-degenerate character under the nilradical $N$ of a Borel subgroup.

We consider functionals on $\pi$ that transform by arbitrary characters of $N$, and we establish a connection between the existence of such functionals and the associated variety of $\pi$, thereby generalizing results of Kostant, Matumoto and others.