1067-22-677   **Siddhartha Sahi*** (`sahi@math.rutgers.edu`), Rutgers University, Hill Center Busch Campus, New Brunswick, NJ 08903. *Invariant functionals on Speh representations.*

Speh representations are an interesting family of unitary representations for GL(2n,R)that were first discovered by Birgit Speh in the residual spectrum. They arise as Zuckerman derived functor modules from unitary characters of GL(n,C), have a Hilbert space realization due to Sahi-Stein, and play an important role in the Vogan-Tadic classification of the unitary representations of GL(n). Let H=Sp(2n,R), U=U(n), and let P be the Siegel parabolic subroup of H.

Using automorphic techniques Offen-Sayag have shown (unpublished) that the space of H-invariant distribution on the Speh representations has dimension 0 or 1, according as n is odd or even. We give a strengthening of this result, by showing that for (1) odd n there are no U-invariant distributions (2) for even n there is a 1-dimensional space of P-invariant distributions.

This is joint work with Dmitry Gurevich and Eitan Sayag. (Received September 13, 2010)