

Meeting: 1004, Bowling Green, Kentucky, SS 9A, Special Session on L-Functions

1004-11-76 **Brooks Roberts** and **Ralf Schmidt*** (rschmidt@math.ou.edu), University of Oklahoma,
Department of Mathematics, 601 Elm Avenue, Norman, OK 73019. *Local Newforms for*
GSp(4). Preliminary report.

This talk is about a theory of local newforms for irreducible, admissible representations of the group $\mathrm{GSp}(4, F)$, where F is a non-archimedean local field. We will present a joint work with Brooks Roberts, where we proved the existence of a local newform theory analogous to Casselman's theory for $\mathrm{GL}(2, F)$. A key feature of our theory is to consider fixed vectors under a family of open-compact subgroups called the paramodular groups. Local newforms provide a link between classical modular forms and automorphic representations. Our theory therefore has applications to Siegel modular forms of degree 2; this will be discussed in a talk by Brooks Roberts. (Received January 17, 2005)