

**Meeting:** 1001, Evanston, Illinois, SS 20A, Special Session on Representation Theory of Reductive Groups

1001-22-155      **Jeffrey Hakim** and **Fiona Murnaghan\***, Department of Mathematics, University of Toronto,  
100 Saint George Street, Toronto, Ontario M5S 3G3, Canada. *Distinguished supercuspidal  
representations*. Preliminary report.

If  $\theta$  is an involution of a group  $G$ , with fixed points  $G^\theta$ , a representation  $\pi$  of  $G$  is  $\theta$ -distinguished if the space  $\text{Hom}_{G^\theta}(\pi, 1)$  of  $G^\theta$ -invariant linear functionals on the space of  $\pi$  is nonzero. Let  $G$  be a reductive  $p$ -adic group, and let  $\pi$  be one of the tame supercuspidal representations of  $G$  constructed by J.K. Yu. We describe a formula expressing the dimension of  $\text{Hom}_{G^\theta}(\pi, 1)$  in terms of properties of a cuspidal  $G$ -datum used to construct the representation  $\pi$ . (Received August 23, 2004)