1056-22-2035   **Stephen M DeBacker***, Department of Mathematics, 2074 East Hall, 530 Church Street, Ann Arbor, MI 48109-1043. *Invariant distributions supported on compact elements.*

If J denotes the space of invariant distributions supported on the set of compact elements in a reductive p-adic group G and D denotes the space of bi-Iwahori invariant functions on G, can one describe a basis for the restriction to D of J? I will discuss what is known about this problem, and I will introduce some related problems on finite groups of Lie type. (Received September 22, 2009)