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**Dan M Barbasch\*** (dmb14@cornell.edu), Department of Mathematics, Cornell University, Ithaca, NY 14850, and **Pavle Pandzic**. *Dirac cohomology and the unitary dual of complex reductive groups at half integral infinitesimal character*. Preliminary report.

$(\mathfrak{g}, K)$  cohomology is an important tool in the theory of infinite dimensional representations of real reductive groups. For example results of Enright and Vogan-Zuckerman show that there is a close relationship between  $(\mathfrak{g}, K)$  cohomology and the unitary dual at regular infinitesimal character. Dirac cohomology is a generalization of  $(\mathfrak{g}, K)$  cohomology. It is hoped that it will play a similar role in the determination of the unitary dual at half integral infinitesimal character. In this talk I will discuss the special case of a complex group viewed as a real group. (Received August 25, 2008)