1023-22-918   **Judith A. Packer*** (`packer@euclid.colorado.edu`), Department of Mathematics, Campus Box 395, University of Colorado, Boulder, CO 80309-0395. *Projective representations and the Mackey obstruction.* Preliminary report.

In 1958 G.W. Mackey published his paper "Unitary representations of group extensions, I" in Acta Mathematica. Here, motivated by his work on induced representations, he discussed projective representations of locally compact groups and their importance to representation theory. If N is a closed normal subgroup of a locally compact group G, and U is an irreducible representation of N, there is an obstruction, the so-called Mackey obstruction, to extending U to a representation of G. In this talk I will give a brief survey of Mackey's work in this area and discuss the important role that projective representations and the Mackey obstruction have played in the work of many mathematicians studying certain types of operator algebras through the years. (Received September 22, 2006)