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Megumi Harada*, Department of Mathematics and Statistics, McMaster University, 1280 Main Street West, Hamilton, Ontario L8S 4K1, Canada, and **Paul Selick**. *Kirwan surjectivity for Hamiltonian LG -spaces in K -theory*. Preliminary report.

Let G be a compact Lie group and LG its associated loop group. Suppose (M, ω) is a Hamiltonian LG -space with proper moment map Φ . In this setting, Bott, Tolman, and Weitsman proved that the inclusion of the 0-level set of Φ induces a surjection in Borel-equivariant cohomology

$$\kappa : H_G^*(M) \rightarrow H_G^*(\Phi^{-1}(0))$$

in analogy with the finite-dimensional case proven by Kirwan.

I will discuss work in progress in Paul Selick concerning an analogue of the above result of Bott, Tolman, and Weitsman in the setting of G -equivariant topological K -theory. (Received July 26, 2007)