Meeting: 1001, Evanston, Illinois, SS 1A, Special Session on Modern Schubert Calculus

1001-53-228 Megumi Harada* (megumi@math.toronto.edu), Department of Mathematics, 100 St. George St., University of Toronto, Toronto, Ontario M5S3G3, Canada. The T-equivariant cohomology of cell complexes and the case of infinite Grassmannians.

Explicit computations of equivariant cohomology rings have many applications. In 1998, Goresky, Kottwitz, and MacPherson showed that for certain spaces with a torus action, the equivariant cohomology ring can be explicitly described by combinatorial data obtained from its orbit decomposition. We generalize their theorem to the (possibly infinite-dimensional) setting of cell complexes. These results include many new examples, including homogeneous spaces of a loop group LG. (Received August 27, 2004)