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Christy Hazel* (chazel@uoregon.edu). *Equivariant fundamental classes in $RO(C_2)$ -graded cohomology.*

Let C_2 denote the cyclic group of order two. Given a manifold with a C_2 -action, we can consider its equivariant Bredon $RO(C_2)$ -graded cohomology. In this talk, we show how a version of the Thom isomorphism theorem in $RO(C_2)$ -graded cohomology in constant $\mathbb{Z}/2$ coefficients can be used to develop a theory of fundamental classes for equivariant submanifolds. We then show these classes can be used to understand the cohomology of any C_2 -surface in constant $\mathbb{Z}/2$ coefficients, including the ring structure. (Received September 16, 2019)