

Jan Jaworowski, *Indiana University, Bloomington, USA*

Mod p Chern Polynomials in Vector Bundles with Periodic Maps

Suppose that $E \rightarrow B$ is a vector bundle with a linear periodic map of period p ; the map is assumed free on the outside of the 0-section. A polynomial $c_E(y)$, called mod p Chern polynomial of E , is defined. It is analogous to the Stiefel-Whitney polynomial defined by Dold for real vector bundles with the antipodal involution. The mod p Chern polynomial can be used to measure the size of the periodic coincidence set for fibre preserving maps of the unit sphere bundle of E into another vector bundle.