

Title:–On Stiefel-Whitney Classes of vector bundles over real Stiefel Manifolds.

Abstract:– In this article we show that there are at most two integers up to $2(n - k)$, which can occur as the degrees of nonzero Stiefel-Whitney classes of vector bundles over the Stiefel manifold $V_k(\mathbb{R}^n)$. In the case when $n > k(k+4)/4$, we show that if $w_{2^q}(\xi)$ is the first nonzero Stiefel-Whitney class of a vector bundle ξ over $V_k(\mathbb{R}^n)$ then $w_t(\xi)$ is zero if t is not a multiple of 2^q . In addition, we give relations among Stiefel-Whitney classes whose degrees are multiples of 2^q .