Abstract

Skew Cyclic Codes Over $F_2 + vF_2$

Pani Seneviratne

Department of Mathemtics
American University of Sharjah

In paper we will discuss skew cyclic codes over the ring $R = F_2 + vF_2 = \{0, 1, v, v+1\}$, where $v^2 = v$. We will show that the only commutative rings with four elements and with non trivial ring automorphism are the finite field $GF(4)$ and the ring R. We will find a set of generators for cyclic codes defined over this ring.