

Abstract

In this talk, we give an explicit expression to accurately represent all distinct Hermitian self-dual cyclic codes of length 2^k over $GR(4,m)$, using binomial coefficients. As an application of the formulas, we present explicitly all distinct Hermitian self-dual cyclic codes of length 2^k over $GR(4,m)$ for $k=3, 4, 5$.