
PADMAPANI SENEVIRATNE, Texas A&M University-Commerce

Paley type bipartite graphs and self-dual codes

We derive an infinite class of binary self-dual codes from Paley type bipartite graphs $P(q, k)$. Many of the codes in this class yield optimal or near optimal parameters. Another class of binary self-orthogonal codes are obtained from the complement of graphs $P(q, k)$. These codes also tend to have optimal parameters. In addition, we find the structure of the automorphism group of these codes.