

Abstract

Asymptotically good quasi-cyclic and quasi-twisted LCD codes of fixed low index are shown to exist. For a given length, exact enumeration formulas are provided. The existence of these infinite families relies on factorizations of special binomials over finite fields; the existence of these factorizations, in turn, assume Artin primitive root conjecture, or in some cases can be derived unconditionally by using Dickson polynomials.