

Abstract

Construction of Optimal Codes

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In a joint paper with Michael Braun and Alfred Wassermann (Optimal Linear Codes From Matrix Groups) we showed how to use the prescription of automorphism groups to solve the construction problem of linear codes over the finite field $GF(q)$ with prescribed minimum distance.

In this talk I will shortly explain the used method, and will present new results (including new (sometimes optimal) codes for $q = 2, 3, 4, \dots$). I will finish the talk with speculations about good groups, these are groups which will work as prescriped automorphism groups, producing new codes.