Abstract

Binary extremal self-dual codes of type II and their automorphisms

Wolfgang Willems

Otto-von-Guericke-Universität
Magdeburg

Extremal type II codes are for several reasons of particular interest. However only for small lengths such codes have been contructed. In order to find larger examples 'symmetries' or in other words 'non-trivial automorphisms' may be helpful. In this spirit the talk deals with automorphisms of putative extremal codes of type II. The known examples and what we can prove naturally lead to interesting conjectures. Finally, we classify all extremal extended quadratic residue codes of type II. The results are joint work with Stefka Bouyuklieva (Veliko Tarnovo) and Anton Malevich (Magdeburg).