

MATHEMATIKKOLLOQUIUM

Das Institut für Mathematik lädt zu folgendem Vortrag ein:

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University of Kentucky, zur Zeit: Universität Zürich

Duality and MacWilliams Identities in Coding Theory

The Hamming weight of a vector, which simply counts the number of nonzero entries, is the most fundamental tool for studying error-correcting properties of a code. One of the most famous results in algebraic coding theory, the MacWilliams identity, provides a transformation between the Hamming weight enumerators of a code and its dual.

This identity has been generalized to codes over finite Frobenius rings and also to various other weight functions. A fundamental role in proving such identities is played by the character group of the additive group of the finite field (or ring) and the Fourier transform. We will give an approach to this area based on partitions that enjoy a certain invariance property under the Fourier transform.

Zeit: Dienstag, den 26. Februar 2013 um 17:15 Uhr

Ort: Victor-Franz-Hess Haus, Technikerstraße 25, HS D

Gäste sind herzlich willkommen!

Ulrich Oberst