Failures of the MacWilliams identities for linear codes over finite fields

Jay A. Wood

Western Michigan University, USA

Abstract

The famous MacWilliams identities show that the Hamming weight enumerator of a linear code over a finite field determines the Hamming weight enumerator of its dual code, and vice versa. In this talk we describe how the MacWilliams identities fail for most other weights on a finite field.

Keywords

•

Lee Weight, Euclidean Weight, MacWilliams identities