

Abstract

## Classifying polynomials of linear codes and hyperplane arrangements

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A linear  $[n, k]$ -code over  $\mathbb{F}_q$  gives rise to an arrangement of  $n$  hyperplanes in  $\mathbb{F}_q^k$ . This correspondence gives us some nice methods to determine the (generalized) weight enumerator of a code, the coboundary polynomial of the intersection lattice of the arrangement, and other related polynomials. I will talk about (known) correlations and methods, specified to linear codes and hyperplane arrangements.