Abstract

A Combinatorial Approach to Flag Codes

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In network coding, a flag code is a collection of sequences of nested subspaces of $\mathbb{F}_q^n$, being $\mathbb{F}_q$ the finite field with q elements. This family of codes was first introduced in [4]. Even though flag codes can be seen as a generalization of subspace codes, their distance is a much more complex parameter than the subspace distance. In this talk we present a combinatorial approach to flag codes by means of which we can interpret the possible realizations of a flag code distance value as different partitions of an appropriate integer. This viewpoint allows us to extract information about the flag code in terms of well-know concepts coming from the classical theory of partitions.

Joint work with Clementa Alonso-Gonzàlez.

References

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