

Additive skew G -codes over finite fields

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a joint work with

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Abstract

We define additive skew G -codes over finite fields and discuss several dualities attached to these codes. We examine the properties of self-dual skew G -codes and in particular we show that the dual, under any duality, of an additive skew G -code is also an additive skew G -code. Additionally, we propose a matrix construction for additive skew G -codes and use it to construct several examples of extremal self-dual additive skew G -codes over the finite field \mathbb{F}_4 . Such codes have a strong connection to quantum error correcting codes.

Keywords

Skew codes, Group codes, Additive Codes.

References

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