

POLYNOMIAL CODES OVER FINITE FIELDS

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ABSTRACT

The most general class of error detection and correction codes is the class of linear codes. A special class of linear codes are polynomial codes, where messages are encoded using polynomials with coefficients in a finite field. For correcting single errors, one big advantage of polynomial codes is that specifying only the first row of the encoder/ generator matrix G is sufficient to describe the entire code. These codes are widely used in digital communication and storage systems.

Keywords Finite fields · polynomial codes · BCH codes

References

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