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THE WEIGHT DISTRIBUTION OF THE COSET LEADERS
OF TERNARY CYCLIC CODES WITH GENERATING
POLYNOMIAL OF SMALL DEGREE

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Using the algebraic structure of cyclic codes, it is proved that the cyclic codes with one and the same generating polynomial have equal weight distribution of cosets' leaders. As an illustration, the weight distribution of the leaders of the cosets of all ternary cyclic codes with generating polynomial of degree less than 6 is presented.

Keywords: cyclic codes, covering radius, coset weight distribution

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