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Five errors correcting (73, 61, 12) quadratic residue code over ternary field

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Abstract. This paper investigates the error-correcting performance of (73,61,12) quadratic residue code over a ternary field. A technique used to determine unknown syndromes of binary quadratic residue code is applied to the non-binary case to decode the ternary quadratic residue code of length 73. Furthermore, known and unknown syndromes are produced using the error-locator polynomial.

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