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*The functional codes from non-degenerate Hermitian variety*

We study the functional codes of order  $h$  defined by G. Lachaud on a non-degenerate Hermitian variety. We exhibit a divisibility condition satisfied by all the weights of this code. In the case this functional code is defined by evaluating quadratic functions on the non-degenerate Hermitian surface, we list the first five weights, we describe the geometric structure of the corresponding quadrics and give a positive answer to a conjecture formulated on this question. We will present two new conjectures. The first is about the divisor (largest integer dividing all the weights) of the functional code. The second is on its minimum distance and the distribution of the codewords of its first  $2h + 1$  weights.

This is a joint work with San Ling (NTU, Singapore) and Chaoping Xing (NTU, Singapore).