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SOME PROPERTIES OF PSEUDO INNER PRODUCT SPACES

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In this paper we just recall the definition of pseudo inner product space. All pseudo inner product spaces are defined over finite prime fields Z_p , p a prime. Here we introduce the concepts like pseudo orthogonal and pseudo orthonormal sets in pseudo inner product space.

We observe that these notions are unrelated. We also define the notion of self orthogonal elements in this space. The notion of self orthogonality is impossibility in case of pseudo inner product spaces. We leave it as an open problem to convert any linearly independent subset of a pseudo inner product space into a linearly independent pseudo orthogonal subset of the pseudo inner product space. An interesting feature of this paper is that it gives several illustrative examples.

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