CLASSES OF OPERATORS RELATED TO m–ISOMETRIC OPERATORS

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Abstract. Isometries played a pivotal role in the development of operator theory, in particular with the theory of contractions and polar decompositions and has been widely studied due to its fundamental importance in the theory of stochastic processes, the intrinsic problem of modeling the general contractive operator via its isometric dilation and many other areas in applied mathematics. In this paper we present some properties of n-quasi-(m,C)-isometric operators. We show that a power of a n-quasi-(m,C)-isometric operator is again a n-quasi-(m,C)-isometric operator and some products and tensor products of n-quasi-(m,C)-isometries are again n-quasi-(m,C)-isometries.

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