

On (n, m) - Posimetrically Equivalent Operators

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Abstract

In this paper, we generalize posimetrically equivalent operators to the class of (n,m) -posimetrically equivalent operators. Some basic properties of this class are covered. We also relate this equivalence relation to the class of (n,m) -quasi-p-normal operators. We also relate this class to other equivalence relations such as (n, m) -metric equivalence. The methodology used involved the use of properties of unitary and adjoint operators. Results show that this class is closed under unitary equivalence. Results also show that this class is closed under scalar multiplication. The study of posimetrically equivalent operators is important in the telecommunication industry where signal processing uses the properties of this class through compacting of signals into small antenna. We conclude that these class is (n,m) -metrically equivalent provided they are idempotent . On the same note we recommend more research to be done to establish if this class is equivalent to almost similarity of operators.

Keywords: Quasi-p-normal, (n,m) -metrically equivalent, metrically equivalent, posimetrically equivalent (n,m) -posimetrically equivalent