

Von Neumann J-algebras in a space with two symmetries

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Abstract

We show that a von Neumann J-algebra A of type (B) does not contain J-positive (J-negative) operators. J-projections in A are characterized. The class of plus-operators that are simultaneously self-adjoint and J-self-adjoint is described. © 2007 Pleiades Publishing, Inc.

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Keywords

Hilbert space, Indefinite metric, J-algebra, Plus-operator, Polar decomposition of an operator, Von Neumann algebra