uniform primeness of the Jordan algebra of symmetric operators. (English summary)

Suppose $H$ is a Hilbert space and $A$ is the set of all bounded selfadjoint operators on $H$. Define the Jordan product on $A$ by $A \circ B = \frac{1}{2}(AB + BA)$. Then $A$ with this product is a commutative nonassociative algebra such that $((A \circ A) \circ B) \circ A = (A \circ A) \circ (B \circ A)$. The authors study the operator $U_{A,B} : A \rightarrow A$ defined by $U_{A,B}(X) = AXB + BXA$ and prove that $\|U_{A,B}\| \geq \|A\|\|B\| (A, B \in A)$. This is the best possible lower estimate for this operator on the selfadjoint portion of $B(H)$.

Reviewed by A. Niknam

References


*Note: This list, extracted from the PDF form of the original paper, may contain data conversion errors, almost all limited to the mathematical expressions.*

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