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Stachó, L.L.; Zalar, B.

Bicircular projections on some matrix and operator spaces. (English)

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A projection p on a complex Banach space is called bicircular if every linear combination $\lambda p + \mu(1-p)$, with $|\lambda| = |\mu| = 1$, is an isometry. This notion arises from complex analysis, particularly Reinhardt domains. The authors study and explicitly characterize the set of bicircular projections for the complex Banach spaces $B(H)$ of bounded linear operators on a Hilbert space H , $S(H)$ (the symmetric part of $B(H)$) and $A(H)$ (the antisymmetric part of $B(H)$).

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*47C05 Operators in topological algebras

47C10 Operators in *-algebras

47L25 Operator spaces (=matricially normed spaces)