A CANONICAL FORM FOR $H$–UNITARY MATRICES

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Abstract. In this paper matrices $A$ are considered that have the property that $A^* HA = H$, where $H = H^*$ is invertible. A canonical form is given for the pair of matrices $(A, H)$ under transformations $(A, H) \rightarrow (S^{-1} AS, S^* HS)$, where $S$ is invertible, in which the canonical form for the $A$-matrix is the usual Jordan canonical form. The real case is studied as well.


Keywords and phrases: Indefinite inner product space, canonical forms, $H$-unitary matrices.

REFERENCES
