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A NOTE ON THE NUMERICAL SOLUTION OF COMPLEX HAMILTONIAN AND SKEW-HAMILTONIAN EIGENVALUE PROBLEMS*

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Abstract. In this paper we describe a simple observation that can be used to extend two recently proposed structure preserving methods for the eigenvalue problem for real Hamiltonian matrices to the case of complex Hamiltonian and skew-Hamiltonian matrices.

Key words. eigenvalue problem, Hamiltonian matrix, skew-Hamiltonian matrix, algebraic Riccati equation, invariant subspace.

AMS subject classifications. 65F15, 93B40, 93B36, 93C60.

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