



A NOTE ON A -SELF-ADJOINT AND A -SKEW-ADJOINT OPERATORS AND THEIR EXTENSIONS

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Abstract

In this paper, we introduce the notions of an A -self-adjoint, an A -skew-adjoint linear operator, where A is a self-adjoint and invertible operator and related classes of operators, which generalize some known classes of operators. We investigate some properties of these operators and show that these operators share some properties with some known classes of operators. We prove some results on some equivalence of these operators and investigate conditions under which these operators are self-adjoint, unitary, skew-adjoint, normal, hyponormal, quasinormal or binormal. We also attempt to locate the spectra of such operators.

Keywords and phrases: A -self-adjoint, A -skew-adjoint, A -unitary, A -normal, A -hyponormal, Hamiltonian.

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