

1030-46-21

Miron B Bekker* (bekkerm@umr.edu), Department of Mathematics and Statistics, University of Missouri-Rolla, Rolla, MO 65409. *Automorphic-Invariant Non-Densely Defined Hermitian Contractive Operators.*

We consider operators with norms not greater than 1, defined on a proper subspaces of Hilbert space that have Hermitian property (non-densely defined Hermitian contractions). In addition we assume that such operators are unitarily equivalent to their linear-fractional transformations (automorphic-invariant operators). We show that any such operator A always admits a self-adjoint extensions \hat{A} with the same norm that is also automorphic-invariant. In particular, extreme extensions \hat{A}_M and \hat{A}_μ are always automorphic-invariant. A functional characterization of an automorphic-invariant pair (A, \hat{A}) is given in terms of a resolvent of the operator \hat{A} . Special attention is paid to the case when the codimension of the domain of the operator A is one. Examples of automorphic-invariant operators are considered. (Received June 13, 2007)