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CHARACTERIZATION OF THE UNBOUNDED BICOMMUTANT OF $C_0(N)$ CONTRACTIONS

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Abstract. Recent results have shown that any closed operator A commuting with the backwards shift S^* restricted to $K_u^2 := H^2 \ominus uH^2$, where u is an inner function, can be realized as a Nevanlinna function of $S_u^* := S^*|_{K_u^2}$, $A = \varphi(S_u^*)$, where φ belongs to a certain class of Nevanlinna functions which depend on u. In this paper this is generalized to show that given any contraction T of class $C_0(N)$, that any closed (and not necessarily bounded) operator A commuting with the commutant of T is equal to $\varphi(T)$ where φ belongs to a certain class of Nevanlinna functions which depend on the minimal inner function m_T of T.

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