

1032-47-127

M. D. Moran* (mmoran@euler.ciens.ucv.ve), c/Los manguitos Res. Guaicamacuto Apto. 9A, Las Delicias, Caracas, DC 1050, Venezuela. *The relaxed commutant lifting problem.*

This is a joint job with SAM Marcantognini.

We use some ideas from Foias, Cotlar-Sadosky, Arocena and Arov-Grossman to give a different approach to the relaxed commutant lifting problem, already studied by Frazho- Horst-Kaashoek.

Let E_0, E, H be Hilbert spaces and a contraction $T \in L(H)$ with minimal isometric dilation $V_T \in L(K_T)$. Given two operators $Q, R \in L(E_0, E)$ such that $Q^*Q - R^*R \geq 0$ and a contraction $C \in L(E, H)$ that satisfies $TCR = CQ$, we say that an operator $D \in L(E, K_T)$ is a contractive relaxed lifting of the operator C if and only if D is a contraction that satisfies $P_H^{K_T} D = C$ and $V_T D R = D Q$.

We describe the set of all contractive relaxed lifting of C , by a class of operator valued analytic functions. (Received August 18, 2007)