

Using D-III, Lemma 1.1. we conclude $T(ux) = uT(x)$ and $T(xu^*) = T(x)u^*$ for all $x \in \hat{M}$. Hence

$$T(x) = T(uu^*xu) = uT(u^*xu)u^* = uT(pu^*xup)u^* =$$

$$= upu^*xupu^* = uu^*xu = x$$

for all $x \in \hat{M}$. From this we obtain that for every bounded sequence (x_k) in M $\lim_m \|T_m x_m - x_m\| = 0$ for some subsequence of the T_n 's and of the x_k 's. This conflicts with our assumption at the beginning, hence the theorem is proved. □