About the Bound of the C* Exponential Length

Qingfei Pan and Kun Wang

Abstract. Let X be a compact Hausdorff space. In this paper, we give an example to show that there is $u \in C(X) \otimes M_n$ with $\det(u(x)) = 1$ for all $x \in X$ and $u \sim_h 1$ such that the C* exponential length of u (denoted by $cel(u)$) can not be controlled by π. Moreover, in simple inductive limit C*-algebras, similar examples also exist.