Central Sequence Algebras of a Purely Infinite Simple $C^*$-algebra

Akitaka Kishimoto

Abstract. We are concerned with a unital separable nuclear purely infinite simple $C^*$-algebra $A$ satisfying UCT with a Rohlin flow, as a continuation of [12]. Our first result (which is independent of the Rohlin flow) is to characterize when two central projections in $A$ are equivalent by a central partial isometry. Our second result shows that the K-theory of the central sequence algebra $A' \cap A^\omega$ (for an $\omega \in \beta\mathbb{N} \setminus \mathbb{N}$) and its fixed point algebra under the flow are the same (incorporating the previous result). We will also complete and supplement the characterization result of the Rohlin property for flows stated in [12].