

K-Theory for bisological processes of infinite C*-algebra

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ABSTRACT

Extensions algebras of unital purdy infinite simple c* algebras have been studied on the vast canvas of complex bisological processes. K-Theory is developed to understand the impact of such processes on the global, astronomical and cosmic scale.

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INTRODUCTION

In the 1960s, Atiyah and Hirzebruch developed the K-theory which is based on the work of Grothendieck in algebraic geometry. It was introduced as a tool in C* algebras theory in the early 1970s through some specific important applications. One is the classification of AF-algebras given by Elliott (1). Today K-theory is an active research area and

– An useful tool for the study of C* algebras of complex BIS processes. (Fig. 1-4)

- K-theory is very useful in non commutative geometry
- Algebraic topology of the neural, cellular, viral and bacterial assemblies.
- Nanotechnology and viral proliferation.

Let A be a C* -algebra, and let p, q be projections in A. We write $p \sim q$ if they are (Murray-von Neumann) equivalent i.e. $p = v^*v$ and $q = vv^*$ for some partial isometry v in A. We denote the Murray-non Neumann equivalence class containing p by [p]. Write $p \prec q$, if p is equivalent to a subprojection of q.

The relations are also defined in the matrix algebras on A.

A projection of p in a c* -algebra A is said to be infinite, if it is equivalent to a proper subprojection of itself.

If p is non-zero and if there are mutually orthogonal projections p_1, p_2 in A such that $p_1 + p_2 \leq p$ and $p \sim p_1 \sim p_2$, then p is called properly infinite. A nonzero projection p is properly infinite, if and only if $p \oplus p \prec p$.

A unital C*-algebra A is called properly infinite, if its unit 1_A is a properly infinite projection.

Infinite C*-algebra:

A unital simple C*-algebra A, which is not isomorphic to \mathbb{C} is called purely infinite, if for every non-zero positive element a in A, there is an element x in A such that $x^*ax = 1$.

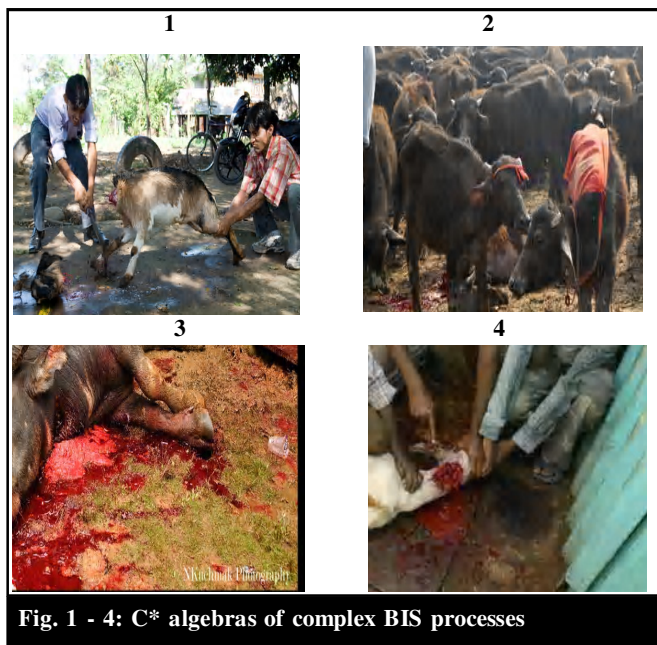


Fig. 1 - 4: C* algebras of complex BIS processes

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