GROUPOID EQUIVARIANT KK-THEORY AND C*-EXTENSIONS

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Kasparov's KK-theory admits a description in terms of extensions of C*-algebras. Thomsen generalized this description to the case of equivariant KK-theory when the underlying groups are locally compact and second countable. Le Gall extended the equivariant KK-theory to the actions of Hausdorff groupoids then Tu used it to study Baum-Connes conjecture.

The relation between groupoid equivariant KK-theory and C*-extensions has been remained untouched. The first step to investigate this problem is to study the relation between RKK-theory and extension of C*-algebras. I begin my talk with establishing this relation. I will also discuss one of our primary motivations to study this problem which came from our joint work on quasi-invariant lifts of completely positive maps for groupoid actions. Finally, I will explain the relation between groupoid equivariant KK-theory and C*- extensions.

This talk is based on ongoing joint work with Suvrajit Bhattacharji.