

1106-47-2723

**Scott M. LaLonde\*** ([slalonde@uttyler.edu](mailto:slalonde@uttyler.edu)), Department of Mathematics, University of Texas at Tyler, 3900 University Boulevard, Tyler, TX 75799. *Equivalence and Exact Groupoids*. Preliminary report.

An interesting equivalence relation for locally compact Hausdorff groupoids arises when two groupoids admit suitably nice actions on the same space. This notion of groupoid equivalence is strictly weaker than isomorphism, but it is strong enough to preserve certain desirable properties. These ideas are strongly paralleled by those surrounding the theory of Morita equivalence for  $C^*$ -algebras. Indeed, equivalence of groupoids is intimately connected to the Morita equivalence of the associated groupoid  $C^*$ -algebras. Given this connection, I will describe how the proof of a purely  $C^*$ -algebraic result can be mimicked to show that a property called exactness is preserved under groupoid equivalence. Along the way, I will discuss groupoid crossed product  $C^*$ -algebras and some classical ideas that motivate the study of groupoid equivalence. (Received September 16, 2014)