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Scott M. LaLonde* (scott.m.lalonde.gr@dartmouth.edu), 6188 Kemeny Hall, Dartmouth College, Hanover, NH 03755. *Results on Nuclearity and Exactness for Groupoid Crossed Product C^* -algebras*. Preliminary report.

In 1978, P. Green established that the class of nuclear C^* -algebras is stable under crossed products by amenable groups. It was later proven by E. Kirchberg that the crossed product of an exact C^* -algebra by an amenable group is again exact. In this talk we will discuss generalizations of these two longstanding results to crossed products by locally compact groupoids. In particular, we show that if G is a measurewise amenable groupoid acting on a nuclear C^* -algebra A , then the crossed product $A \rtimes G$ is nuclear. We also show that if G is an exact groupoid and A is an exact C^* -algebra, then the reduced crossed product $A \rtimes_r G$ is exact. If G is amenable, then this implies that the full crossed product is exact. (Received September 16, 2013)