

A Luna etale slice theorem for algebraic stacks

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Quotient stacks are a distinguished class of algebraic stacks which provide key intuition for studying the geometry of general algebraic stacks. It has long been believed that certain algebraic stacks are in some sense "locally" quotient stacks. In this talk, we will prove that this expectation holds by providing a description of the etale local structure of algebraic stacks near points with linearly reductive stabilizer. We will then discuss a number of striking applications of this result. This is joint work with Jack Hall and David Rydh.