

# Generalized non holonomic systems on Lie algebroids

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In this talk we will describe mechanical systems subject to generalized non holonomic constraints on a Lie algebroid. We will see that the geometry underlying these systems gives rise to another algebroid structure on the constraint manifold, a Leibniz algebroid. Finally using the linear “almost Poisson” structure on the dual bundle it will be possible to formulate a Hamilton–Jacobi theory.