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David S Li-Bland* (david.libland@gmail.com), Department of Mathematics BA6290, 40 St George St., Toronto, Ontario M5S2E4, Canada. *Some examples of symplectic groupoids.*

Suppose a quadratic Lie algebra, \mathfrak{g} , acts on a manifold M in such a way that all the stabilizer subalgebras are coisotropic in \mathfrak{g} . A choice of transverse Lagrangian subalgebras $\mathfrak{e}, \mathfrak{f} \subset \mathfrak{g}$ defines a Poisson structure on M . Examples include the Poisson structures of Lu-Yakimov, and in particular the Evens-Lu Poisson structures on the variety of Lagrangian Grassmannians and on the de Concini-Procesi compactifications.

In this talk we focus on the explicit construction of symplectic groupoids integrating these Poisson manifolds. Using a certain moduli space of flat \mathfrak{g} -connections, we show that the problem can be reduced to integrating a bundle of Lie algebras to a bundle of Lie groups. (Received September 14, 2010)