BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

HAMILTONIAN REDUCTION IN THE DIRAC SETTING

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CCDS 365, Feb 15, 2023, 4-5pm

Tea: 3:45pm in Room 365

Abstract: Dirac structures are a broad generalization of symplectic, Poisson, and quasi-Hamiltonian structures in which 2-forms and bivectors are replaced by Lagrangian subbundles of the generalized tangent bundle. We introduce a general procedure for reducing a Dirac structure along a submanifold, which recovers several familiar reduction constructions in Poisson and quasi-Poisson geometry. When applied to group-valued moment maps, it produces a new notion of quasi-Hamiltonian reduction by the action of a groupoid. We use this perspective to obtain multiplicative analogues of a number of additive Poisson varieties in geometric representation theory. This is joint work with Maxence Mayrand.

See `http://math.bu.edu/research/geom/seminar.html` or contact Yu-Shen Lin (*yslin@bu.edu*) or Brian Williams (*bwill22@bu.edu*) for more information.