1017-53-160   **Shengda Hu*** (`shengda@dms.umontreal.ca`), Département de Maths. et de Stat., Université de Montréal, CP 6128 succ Centre-Ville, Montréal, QC H3C 3J7, Canada. *Reduction and duality in generalized geometry.*

Generalized geometry is introduced by Hitchin. It considers structures on the generalized tangent bundle $\mathbb{T} = T \oplus T^*$. Generalized complex structure is an almost complex structure on $\mathbb{T}$, with integrability defined by a Courant bracket. Two such structures gives rise to a generalized Kähler structure if they satisfies certain compatibility conditions. The symplectic and complex structures are two examples of generalized complex structure and the usual Kähler structure is an example of generalized Kähler structure. In this talk, we present a notion of Hamiltonian-ness and a reduction construction which generalize the corresponding notion and construction in symplectic geometry. Apply the construction to the case of generalized Kähler structure, we obtain a candidate of the T-duality with H-flux for principle bundles, which originally came out from the consideration of string theorists. (Received February 20, 2006)