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**Particle Cosmology  
after Planck**

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## Symplectic Supermanifolds and the Gauge Algebra of Double Field Theory

*Wednesday, 24 September 2014 15:00 (20 minutes)*

Double field theory is a proposal to incorporate T-duality as a symmetry of a field theory defined on a formally doubled configuration space. Its gauge transformations are governed by the so-called C-bracket which reduces to the Courant bracket of Hitchin and Gualtieri's generalized geometry by solving the "strong constraint", i.e. projecting to a physical configuration space.

By giving an interpretation of double fields as functions on the Drinfel'd double of a suitable Lie bialgebroid, we give a representation of the C-bracket in terms of Poisson brackets and identify the strong constraint as the defining condition of the Drinfel'd double.

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