## **Constrained Superfields in Dynamical Background**

Tuesday, 7 December 2021 16:40 (20 minutes)

We study nonlinear realization of supersymmetry in a dynamical/cosmological background in which derivative terms like kinetic terms are finite. Starting from a linearly realized theory, we integrate out heavy modes without neglecting derivative terms to obtain constraints on superfields. Thanks to the supersymmetry breaking contribution by the kinetic energy, the validity of constrained superfields can be extended to cosmological regimes and phenomena such as reheating after inflation, kinetic-energy domination, and (kinetic) misalignment of axion. (based on a paper with S. Aoki, to appear on arXiv: 2111.XXXXX [hep-th].)

Presenter: Dr TERADA, Takahiro (Institute for Basic Science)

Session Classification: Short talk