



Contribution ID: 15

Type: **not specified**

Infrared dynamics in asymptotically FLRW spacetime

Monday, 9 September 2019 14:15 (45 minutes)

In various cosmological models, the curvature perturbation ζ has a constant solution in the infrared (IR) limit and ζ fulfills the soft theorem, a.k.a, the consistency relation. However, it has not been very clear what ensures these properties. We show the existence of the constant solution and the soft theorem, assuming the asymptotically FLRW geometry and the invariance under the large gauge transformation. In this regard, the situation is quite similar to gauge theories in asymptotically flat spacetimes (Strominger et al., 13). Based on this, we propose a general classification of cosmological models according to different IR behaviors.

Presenter: URAKAWA, Yuko (Bielefeld University)