Contribution ID: **257** Type: **not specified**

Measuring of chiral susceptibility using gradient flow

Thursday, 26 July 2018 12:00 (20 minutes)

In the lattice gauge theory with Wilson fermion, chiral symmetry is explicitly broken. A non-trivial additive correction is needed to renormalize the chiral condensate. In this study, we use gradient flow to avoid this problem. Gradient flow makes us possible to define correctly renormalized chiral susceptibility without additive renormalization.
We measure not only disconnected diagram but also connected diagram for chiral susceptibility. This measurement is on finite temperature full QCD with Nf=2+1 Wilson fermion, and for temperature range 178-348 MeV.

Primary author: Mr BABA, Atsushi (University of Tsukuba)

Co-authors: Mr SUZUKI, Asobu (University of Tsukuba); Prof. SUZUKI, Hiroshi (Kyushu University); Prof. KANAYA, Kazuyuki (University of Tsukuba); Prof. KITAZAWA, Masakiyo (Osaka University); Prof. EJIRI, Shinji (Niigata University); Mr SHIMOJO, Takanori (Kyushu University); Dr UMEDA, Takashi (Hiroshima University); Prof. TANIGUCHI, Yusuke (University of Tsukuba)

Presenter: Mr BABA, Atsushi (University of Tsukuba)

Session Classification: Nonzero Temperature and Density

Track Classification: Nonzero Temperature and Density