

Contribution ID: 260

Type: Talk

## Quark number susceptibility and conserved charge fluctuation for (2+1)-flavor QCD with Möbius domain wall fermions

Friday, 2 August 2024 11:15 (20 minutes)

We explore the phase diagram of (2+1)-flavour QCD through the fluctuations of conserved charges calculated with Möbius domain-wall Fermions (MDWF). We present quark number susceptibilities and conserved charge fluctuations at pion masses around 220 MeV and 135 MeV for aspect ratios of lattices LT=2 and LT=3, respectively. Results are compared with the previous works by the previous works by HotQCD and Wuppertal-Budapest collaborations obtained with the staggered quarks.

Primary author: GOSWAMI, Jishnu (RIKEN Center for Computational Science)

**Co-authors:** FUKAYA, Hidenori (Osaka University); KANAMORI, Issaku (Riken - R-CCS); HASHIMOTO, Shoji (KEK - Sokendai); KANEKO, Takashi (KEK); AOKI, Yasumichi (Riken - R-CCS); NAKAMURA, Yoshifumi (Riken - R-CCS); Dr ZHANG, Yu (Bielefeld University)

Presenter: GOSWAMI, Jishnu (RIKEN Center for Computational Science)

Session Classification: QCD at non-zero density

Track Classification: QCD at Non-zero Density