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

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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.

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