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Equation of state in (2+1)-flavor QCD with gradient flow

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The energy-momentum tensor and the equation of state are studied in finite-temperature (2+1)-flavor QCD with improved Wilson quarks, using the gradient flow method proposed by Makino and Suzuki. Although the up and down quarks are heavy yet ($m_{PS}/m_V \approx 0.63$), we obtain reasonable results, suggesting that the method works well. We also report on the results on the chiral condensate and its susceptibility with the gradient flow method.

Primary author: Prof. KANAYA, Kazuyuki (CiRFSE, Univ. Tsukuba)

Co-authors: Prof. SUZUKI, Hiroshi (Kyushu University); Prof. KITAZAWA, Masakiyo (Osaka Univ.); Mr WAKABAYASHI, Naoki (Niigata Univ.); Mr IWAMI, Ryo (Niigata Univ.); Dr EJIRI, Shinji (Niigata University); Dr UMEDA, Takashi (Hiroshima Univ.); Dr TANIGUCHI, Yusuke (University of Tsukuba)

Presenter: Prof. KANAYA, Kazuyuki (CiRFSE, Univ. Tsukuba)

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