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## 2+1+1 flavor QCD equation of state with Highly Improved Staggered Quarks

*Tuesday, November 5, 2024 11:00 AM (1 hour)*

Recent results on the QCD equation of state (EoS) with 2+1+1 flavors of highly improved staggered quarks (HISQ) are presented. The trace anomaly is computed on ensembles with temporal extent 6, 8, 10 and 12. The pressure is reconstructed from the trace anomaly with the integral method. The available temperature range extends up to about 960 MeV on the coarser ensembles. Along the line of constant physics, the strange and charm quark masses are tuned to the physical values while the light quark mass corresponds to the pion mass of about 300 MeV in the continuum limit.

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**Session Classification:** Seminar (4th week)