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Higher-order Cumulants of Net-Proton Multiplicity Distributions in Au+Au Collisions from STAR Beam Energy Scan Program YU ZHANG, Lawrence Berkeley National Laboratory, Central China Normal University, RHIC-STAR COLLABORATION — Experimental evidences at RHIC and LHC have demonstrated the formation of Quark-Gluon Plasma (QGP) in ultra-relativistic heavy-ion collisions at vanishing baryon chemical potential ($\mu_B \approx 0$ Mev) while the phase transition from the hadronic matter to QGP is suggested to be a crossover from state-of-the-art Lattice QCD calculations. It has been conjectured that there is a first-order phase transition and a critical point at finite μ_B region in the QCD phase diagram. In the search of possible QCD critical point at the QCD phase diagram, higher-order cumulants of conserved quantities (B, Q, S) as sensitive observables to locate its position. In this talk, we will present measurements of higher-order cumulants (up to the 4th order) of net-proton multiplicity distributions in Au+Au collisions at $\sqrt{s_{NN}}$=7.7, 11.5, 14.5, 19.6, 27, 39, 54.4, 62.4

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