Event-by-Event Fluctuations of Mean p_t in Au+Au Collisions at $\sqrt{s_{NN}} = 130$ GeV

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Abstract

Event-by-event fluctuations of global observables in heavy-ion collisions are considered to be sensitive to details of the QCD phase boundary and the transition to a color-deconfined system. In particular, variance comparison measures provide a sensitive means to detect departures from hadronic behavior. We report the results of a detailed analysis of $< p_t >$ fluctuations for minimum biased and central Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV. Results will be compared with a central limit reference and with SPS data.