Mean p_T fluctuations in 3.0 GeV fixed-target collisions from the STAR experiment

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1   The mean p_T fluctuations in heavy-ion collisions can be related to temperature fluctu-
2   ations which quantify the specific heat of the system. Any deviations from the Hadron
3   Resonance Gas model as a function of the incident energy can be interpreted as a possible
4   signal of criticality. In this poster we present the first efficiency corrected charged particle
5   event-by-event mean p_T fluctuations from central Au+Au collisions at $\sqrt{s_{NN}} = 3$ GeV in the
6   STAR experiment. Mean p_T fluctuations are calculated for different acceptance windows in
7   pseudorapidity and compared with the previous BES-I results at $\sqrt{s_{NN}} = 19.6, 62.4, 130,$
8   and 200 GeV, as well as the results from transport model at $\sqrt{s_{NN}} = 3$ GeV. We also discuss
9   the effects of primordial protons on the mean p_T fluctuations.