



Contribution ID: 480

Type: **Poster**

Recent Results on Event-by-Event Fluctuations in ALICE at LHC

Tuesday, 29 September 2015 16:30 (2 hours)

Non-statistical event-by-event fluctuations in relativistic heavy-ion collisions have been proposed as a probe of phase instabilities near the QCD phase transition. In a thermodynamical picture of the strongly interacting system formed in heavy-ion collisions, the fluctuations of the mean multiplicity, particle ratios, mean transverse momentum, and net-particle higher moments are related to the fundamental properties of the system and therefore may reveal information about the QCD phase transition. Detailed studies of particle ratio fluctuations and higher moments have been carried out in Pb-Pb collisions at 2.76 TeV in ALICE. The first results will be shown as a function of collision centrality and pseudorapidity. We will also make comparisons with measurements at lower center-of-mass energies from the SPS and RHIC, and discuss the status and perspectives for future fluctuations measurements at ALICE.

On behalf of collaboration:

ALICE

Primary author: JENA, Satyajit (University of Houston (US))

Presenter: JENA, Satyajit (University of Houston (US))

Session Classification: Poster Session

Track Classification: Correlations and Fluctuations