Contribution ID: **43** Type: **not specified**

Determination of freeze-out conditions from fluctuations in the Hadron Resonance Gas model

Monday, 22 September 2014 10:00 (30 minutes)

Fluctuations of conserved charges measured in Heavy-Ion Collisions (HICs) received increasing attention in recent years, because they are good candidates to explore the phase diagram of QCD matter. During last year, net-electric charge and net-proton moments of multiplicities measured at RHIC have been published by the STAR collaboration, for a range of collision energies which spans a region of the phase diagram at finite chemical potential. In my talk I will present a new freeze-out curve obtained using the Hadron Resonance Gas (HRG) model approach to fit these experimental data. The HRG model is modified in order to have a realistic description of the HICs: kinematic cuts, resonance feed-down and resonance regeneration are taken into account. Our result is in agreement with preliminary studies by the ALICE collaboration, and is supported by recent lattice analysis of the same quantities.

Primary author: Mr ALBA, Paolo Giuseppe (University of Turin and INFN)

Co-authors: Dr RATTI, Claudia (Torino University); Mr BLUHM, Marcus (North Carolina State University); Dr NAHRGANG, Marlene (Duke University); Prof. BELLWIED, Rene (University of Houston); Ms MANTOVANI SARTI, Valentina (University of Turin); Prof. ALBERICO, Wanda (University of Turin)

Presenter: Mr ALBA, Paolo Giuseppe (University of Turin and INFN)

Session Classification: Talks