Contribution ID: **54** Type: **not specified**

Chemical freeze-out in proton-proton and nucleus-nucleus collisions

Wednesday, 9 March 2016 12:05 (30 minutes)

New results of the NA61/SHINE Collaboration at the CERN SPS on mean hadron multiplicities in proton-proton (p+p) interactions are analyzed within the transport models and the hadron resonance gas (HRG) statistical model. The chemical freeze-out parameters in p+p interactions and central Pb+Pb (or Au+Au) collisions are found and compared with each other in the range of the center of mass energy of the nucleon pair $\sqrt{s_{NN}}$=3.2–17.3 GeV. The canonical ensemble formulation of the HRG model is used to describe mean hadron multiplicities in p+p interactions and the grand canonical ensemble in central Pb+Pb and Au+Au collisions. The chemical freeze-out temperatures in p+p interactions are found to be larger than the corresponding temperatures in central nucleus-nucleus collisions.

Primary author: BEGUN, Viktor (UJK)

Presenter: BEGUN, Viktor (UJK)

Session Classification: Wednesday Morning