



Contribution ID: 895

Type: Poster

NA61/SHINE ion program

This presentation will summarize status and plans of the NA61/SHINE ion program. NA61/SHINE at the SPS facility is the successor of the former NA49 experiment. The aim of the new project is to explore the phase diagram of strongly interacting matter within the range of thermodynamical variables (like e.g. temperature and baryon chemical potential) where QCD predicts the existence of a 1-st order phase boundary between hadronic and partonic phases and the critical end point.

The detector and data acquisition system upgrades have resulted in an increase of the data rate by factor about 10 as compared to the standard NA49 data rate. These new conditions allows to perform a 2D scan of the phase diagram by varying energy (10A-158A GeV) and size of the colliding nuclear systems (p+p, p+Pb, C+B, Ar+Ca, Xe+La). The main goal of the scan is a search for the critical point and a detailed study of the onset of QGP formation by measuring the dynamical event-by-event fluctuations, the azimuthal anisotropy as well as the inclusive pion and strange hadron production. The increase in the data rate will also give a unique possibility to measure the inclusive and correlated yields of high p_T hadrons.

Primary author: Dr STASZEL, Pawel (Jagiellonian University)

Presenter: Dr STASZEL, Pawel (Jagiellonian University)

Track Classification: 08 - Heavy Ion Collisions and Soft Physics at Hadron Colliders