Contribution ID: **31** Type: **Talk**

Probing the onset of deconfinement - hadron production properties in the NA61/SHINE experiment at CERN SPS

Wednesday 28 August 2024 16:00 (20 minutes)

The NA61/SHINE experiment, situated at the CERN SPS, serves as a versatile fixed-target facility dedicated to probing the phase diagram of strongly interacting matter. Utilizing a unique two-dimensional scan in collision energy (sqrt(s_NN) = 5.1 - 16.8/17.3 GeV) and system size, the NA61/SHINE experiment aims to elucidate the onset of deconfinement and characterize the properties of the created medium.

Recent results on identified hadron production properties within central nucleus-nucleus collisions in the NA61/SHINE experiment will be presented. This includes the analysis of the kinematic distributions of identified hadrons with novel results for the Xe+La system, alongside an examination of strangeness production. Of particular interest is the ratio of positively charged kaons to pion which is highlighted as a key observable for understanding the onset of deconfinement phenomena. Furthermore, unexpected system size dependencies in the inverse slope parameter and the K+/pi+ ratio, correlated with collision energy, will be discussed. The NA61/SHINE results will be compared with the available world data and with various theoretical predictions such as EPOS, PHSD, and UrQMD.

Internet talk

No

Is this an abstract from experimental collaboration?

Yes

Name of experiment and experimental site

NA61/SHINE

Is the speaker for that presentation defined?

Yes

Details

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