

Recent results from NA61/SHINE strong interaction program

Thursday, July 18, 2024 8:47 AM (17 minutes)

The research conducted by the NA61/SHINE spans a broad spectrum of hadronic physics within the CERN SPS energy range. This presentation will delve into the energy-dependent characteristics derived from the SMES model (the horn and step phenomena), along with the latest findings concerning particle production properties observed in p+p collisions and Be+Be, Ar+Sc, and Xe+La collisions at SPS energies. Furthermore, recent observations by the experiment have unveiled an unexpected surplus of charged meson production compared to neutral mesons in central Ar+Sc collisions. This contribution will provide an analysis of these results. A second pivotal aspect of the physics program is the quest for the critical point of nuclear matter. This presentation will highlight the outcomes of fluctuation, HBT and intermittency analyses, offering insights directly relevant to the search for the critical point. The current achievements and future plans for measuring open charm production will be outlined

Alternate track

1. Strong Interactions and Hadron Physics

I read the instructions above

Yes

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