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## News from NA61/SHINE

The NA61/SHINE strong interaction program is based on systematic beam momentum scans ( $13A-150A/158A$  GeV/ $c$ ) involving light and intermediate-mass nuclei, ranging from proton-proton ( $p+p$ ) to xenon-lanthanum (Xe+La) collisions. The program's primary scientific goals include the search for the critical point of strongly interacting matter and the investigation of phenomena related to the onset of deconfinement and fireball formation. In recent years, the program has expanded to include lead-lead (Pb+Pb) collisions, with a focus on understanding the mechanisms of open charm production.

This presentation will summarize the recent NA61/SHINE results on the strong interaction program. The discussion will cover results related to particle spectra and yields, as well as fluctuations and correlations. In particular, new results on kaon and pion production in Xe+La and Pb+Pb collisions will be presented, as well as on resonance ( $K^*$ ,  $\phi$ ) and  $\Lambda$  hyperon production in Ar+Sc collisions. The first results on the direct measurement of open charm production at the SPS energies will also be shown. Finally, new results on intermittency in Xe+La collisions and femtoscopic measurements in Ar+Sc interactions will be included.

### Category

Experiment

### Collaboration (if applicable)

NA61/SHINE

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