XVIII Polish Workshop on Relativistic Heavy-Ion Collisions: Strange and Heavy Flavour Physics



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Lambda hyperon production in central Ar+Sc collisions at CERN SPS energies

Measurements of strange hadron production provide information on the properties of strongly interacting matter and on the mechanisms of particle production in high-energy collisions. The NA61/SHINE experiment at the CERN SPS North Area investigates these processes through a two-dimensional scan in collision energy and system size, covering a wide range of hadronic and nuclear interactions.

This contribution presents results on the production of Lambda hyperons in the 0–10% most central Ar+Sc collisions. This includes studies of the ratios of Lambda hyperons to pions and total strangeness to pions as functions of collision energy and system size. The results will be compared with predictions from selected particle production models and with available world data from proton–proton and nucleus–nucleus collisions.

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