

Multiplicity and forward energy fluctuations in Ar+Sc and Be+Be collisions at the CERN SPS from NA61/SHINE.

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Preliminary results for multiplicity and forward energy fluctuations are presented for Be+Be and Ar+Sc collisions at 13A, 19A, 30A, 40A, 75A and 150A GeV/c beam momentum. The data were obtained by the NA61/SHINE detector at the CERN SPS. Centrality selection and forward energy measurement are based on the nucleon spectator energy in the forward hemisphere determined by the Projectile spectator detector. The scaled variance ω of the multiplicity distribution and the strongly intensive measure Ω of multiplicity fluctuations were calculated for all, negatively and positively charged hadrons. The presented Ω quantity shows, in particular, complete elimination of volume fluctuations for the most central Ar+Sc collisions. A comparison with p+p results from NA61/SHINE, Pb+Pb data of NA49 and EPOS 1.99 simulations is shown.

List of tracks

Charge fluctuations, correlations and balance functions

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