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Pion spectra in Ar+Sc interactions at SPS energies

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The aim of the NA61/SHINE ion programme is to explore the QCD phase diagram within the range of thermodynamical variables accessible by the SPS. In addition the experiment provides precision hadron production measurements for description of the neutrino beam of the T2K experiment at J-PARC and for simulation of cosmic-ray showers for the Pierre Auger Observatory and KASCADE experiments. The main physics goals of the NA61/SHINE ion programme are the study of the properties of the onset of deconfinement and the search for signatures of the critical point of strongly interacting matter. These goals are pursued by performing an energy (beam momentum 13A-158A GeV/c) and system size (p+p, p+Pb, Be+Be, Ar+Ca, Xe+La, Pb+Pb) scan. In this talk I will discuss recent analysis results of Ar+Sc interactions at six beam momenta: 13A, 19A, 30A, 40A, 75A, 150A GeV/c. I will present the rapidity and transverse mass spectra of pions obtained with the “h-” analysis method. The newly obtained data will be compared with different collision systems, namely: p+p, Be+Be and Pb+Pb.

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