CERES/NA45 Results on Strageness Production in 40A GeV Pb+Au Collisions

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Abstract

In 1999 Pb+Au collisions at 40A GeV have been measured by the upgraded CERES/NA45 experiment at CERN-SPS. The Silicon Drift vertex detectors and the Time Projection Chamber provided the momentum determination of all produced charged particles emitted into the pseudorapidity region 2.1$< \eta <$2.6. Neutral strange particle identification is possible via their decay into hadron channels. Pairing positive and negative tracks with the mass assumption of pπ, $\pi\pi$ and KK and with some dE/dx information, the invariant mass spectrum is constructed and after subtraction of combinatorial background peaks due to Λ, K^0 and Φ are identified. Particle yields and spectra for Λ, K^0 and Φ as a function of centrality of the collision will be presented. The results will be put into perspective with the existing systematics as a function of beam energy and will be compared to the predictions of different models.

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