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Particle spectra at ZEUS

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The charged multiplicity distributions and the mean charged multiplicity have been investigated in inclusive neutral current deep inelastic ep scattering with the ZEUS detector at HERA using an integrated luminosity of 38.6 pb-1. The measurements were performed in the current region of the Breit frame, as well as in the current fragmentation region of the hadronic centre-of-mass frame. The KNO-scaling properties of the data were investigated and the energy dependence was studied using different energy scales. The data are compared to results obtained in e+e- collisions and to previous DIS measurements as well as to leading-logarithm parton-shower Monte Carlo predictions.

The scaled momentum distributions of charged particles in jets have been measured for dijet photoproduction with the ZEUS detector at HERA using an integrated luminosity of 359 pb-1. The distributions are compared to predictions based on perturbative QCD carried out in the framework of the modified leading-logarithmic approximation (MLLA) and assuming local parton-hadron duality (LPHD). The universal MLLA scale, Lambda_eff , and the LPHD parameter, k^ch , are extracted.

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