

Investigating the flavor dependence of partonic transverse momentum

Using recently published HERMES data on multiplicities in semi-inclusive deep-inelastic scattering, we discuss for the first time the flavor dependence of unpolarized transverse-momentum dependent distribution and fragmentation functions.

We find convincing indications that favored fragmentation functions into pions have smaller average transverse momentum than unfavored functions and fragmentation functions into kaons.

We find weaker indications of flavor dependence in the distribution functions.

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