

Meson parton distributions at 22 GeV

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To obtain a clearer picture of QCD itself, it is important to study a wide range of structures in various color confined systems. In recent years, we have made considerable progress in understanding the structure of pions, the lightest of all hadrons, through Drell-Yan (DY) and leading neutron (LN) electroproduction data. However, kinematic overlap between these experiments is limited, and additional large- x_π data is needed to test universality. At current energies, a measurement complementary to LN, called tagged deep inelastic scattering (TDIS), has been approved at Jefferson Lab. However, the pion's unmeasured resonance spectrum appears to largely overlap with current kinematics at small W_π^2 . At 22 GeV, much larger values of W_π^2 can be reached, allowing for safer studies of the pion structure at the luminosity frontier.

Primary authors: JI, Chueng-Ryong (North Carolina State University); SATO, Nobuo (Jefferson Lab); BARRY, Patrick (Argonne National Lab); MELNITCHOUK, Wally (Jefferson Lab)

Presenter: BARRY, Patrick (Argonne National Lab)

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