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A new Monte Carlo fit of unidentified charged hadron fragmentation functions ERIC MOFFAT, Old Dominion Univ/Jefferson Lab, WALLY MELNITCHOUK, Jefferson Lab, TED ROGERS, NOBUO SATO, Old Dominion Univ/Jefferson Lab, JEFFERSON LAB ANGULAR MOMENTUM (JAM) COLLABORATION — The theoretical description of transverse momentum differential semi-inclusive deep inelastic cross sections, particularly the description of the very large transverse momentum region where fixed order collinear perturbative QCD factorization applies, requires collinear fragmentation functions that are applicable at comparatively lower Q where many semi-inclusive deep inelastic scattering experiments are performed. Recent phenomenological studies, however, have demonstrated tension in the large transverse momentum/moderate Q region for a number of hard processes. As such, new global analyses focused on these particular kinematical regions are needed. Motivated by this, we present the results of a multi-step Monte Carlo (MC) fit of unidentified charged hadron fragmentation functions performed using various e+/e- data sets and the most recent SIDIS data from COMPASS.

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