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Exploring Meson Structure with Tagged Structure Functions

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Experimental knowledge of the partonic structure of light mesons is very limited due to the lack of stable mesonic targets. New experimental techniques are being developed to create effective pion, kaon, and other targets from tagged nucleon and nuclear targets and beams. The effective tagged meson targets in particular open the opportunity to uniquely probe the structure and composition of the nucleon sea. Measurements of the light mesons' partonic structure, moreover, offer fundamental insights into questions of how mass and structure arise in hadronic systems. A description of tagged deep inelastic structure function experiments driving an anticipated program for the Electron-Ion Collider will be presented.