

APR16-2016-020128

Abstract for an Invited Paper
for the APR16 Meeting of
the American Physical Society

Proton structure through phase-space tomography

XIANGDONG JI, University of Maryland

For more than half a century, much progress has been made in studying the structure of the proton through elastic and deep-inelastic scattering of electrons and similar probes. However, we are still struggling to understand some basic properties of one of the most important components of the visible matter, including its internal spin structure. The development of a theoretical tool, called generalized parton distributions, allows to explore the structure of the proton through its detailed tomographic imaging in phase space, and prompts a need for a high-luminosity electron-ion collider.