

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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Type: **Invited Talk**

Overview of SoLID

Tuesday, March 24, 2020 9:40 AM (20 minutes)

SoLID spectrometer was proposed to fully exploit the potential of JLab 12 GeV energy upgrade. It is a large acceptance detector which can handle very high luminosity. An overview of the exciting rich physics program will be given, which includes a number of planned measurements: a multi-dimensional mapping of semi-inclusive DIS asymmetries to reach ultimate precision for tomography of the nucleon in momentum space in the high- x region; a measurement of parity-violating DIS to provide a precision test of the Standard Model, reaching a sensitivity to new physics at 10-20 TeV level; a precision measurement of J/ψ photo- and electro-production cross sections in the threshold region to probe the strong color fields in the nucleon and to study the origin of the proton mass. The status and the plan of the project will be discussed.

Primary author: CHEN, Jian-ping (Jefferson Lab)

Presenter: CHEN, Jian-ping (Jefferson Lab)

Session Classification: Future Experiments

Track Classification: Future Experiments