

The Status of SoLID Project at Jefferson Lab

Monday, June 5, 2023 5:20 PM (25 minutes)

The Solenoidal Large Intensity Device (SoLID) is a forward-scattering spectrometer located in Hall-A at Jefferson Lab. With its large acceptance and full azimuthal angular coverage, SoLID is capable of handling high luminosities ranging from 10^{37} to 10^{39} /cm²/s, using both polarized and unpolarized targets. The detector makes use of the full potential of the JLab 12 GeV upgrade and is designed to support various programs, including 3D imaging of the nucleon, beyond standard-model searches, and exploration of gluonic forces. Several new experiments have been approved or are currently in active development to further expand these physics programs, requiring the high-intensity and wide acceptance that SoLID uniquely provides. In this presentation, we will introduce the physics topics that SoLID will explore, update the overall status of the program, and report on the current detector research and development activities.

Presenter: Prof. YE, Zhihong (Tsinghua University)

Session Classification: New facilities

Track Classification: New facilities