



ID de Contribution: 40

Type: Oral presentation

TOPSiDE Simulation and Physics Analysis

mardi 23 juillet 2019 11:54 (15 minutes)

TOPSiDE is a concept of a general purpose detector for the Electron-Ion Collider. It features advanced technologies, such as imaging calorimetry with ultra-fast silicon detectors. The detector is conceived such that each particle can be identified and measured individually, similar to the output of Monte Carlo simulations at the hadron level.

We will review the status of the concept, its GEANT4 implementation, and event reconstruction. The latter includes an attempt at using Machine Learning technologies for track finding and to implement Particle Flow Algorithms.

The analysis of fully simulated and reconstructed exclusive J/psi and Upsilon events will be presented.

Auteurs principaux: REPOND, Jose (Argonne National Laboratory); JADHAV, Manoj Bhanudas (Argonne National Laboratory); Dr SHIN, Taylor (Argonne National Laboratory); Dr JOHNSTON, Sereres (Argonne National Laboratory); Dr METCALFE, Jessica (Argonne National Laboratory); Dr CHEKANOV, Sergei (Argonne National Laboratory)

Orateur: REPOND, Jose (Argonne National Laboratory)

Classification de Session: Parallel session B

Classification de thématique: Simulation & software