Contribution ID: **64** Type: **not specified**

Status and Plans of JLAB-12

Thursday, 16 October 2014 09:00 (35 minutes)

Jefferson Lab is a fundamental research laboratory located in Newport News (Virginia-USA). Its primary mission is to explore the fundamental nature of confined states of quarks and gluons, including the nucleons that comprise the mass of the visible universe. It consists of a high-intensity electron accelerator based on continuous wave superconducting radio frequency technology and a sophisticated array of particle detectors. The design features and excellent performance of the accelerator made it possible to plan an upgrade in energy from 6 to 12 GeV without substantially altering the construction scheme of the accelerator. The program includes the construction of major new experimental facilities for the existing three halls, A, B, C and the construction of the new experimental hall D. The project will be completed by the year 2013 and the commissioning of the experimental halls will be extended until the end of 2015. The research program that has motivated the upgrade in energy to 12 GeV includes: the study of the nucleon “tomography” through the study of generalized parton distribution functions (GPDS) and transverse momentum dependent parton distribution functions (TMDs), the study of exotics and hybrid mesons to explore the nature of the quarks confinement, precision test of the Standard Model through parity-violating electron scattering experiments. In this presentation the Status and Plans of JLAB-12 will be given.

Primary author: ROSSI, Patrizia (JLab)

Presenter: ROSSI, Patrizia (JLab)

Session Classification: Hadron Physics III