



**HEP 2013
Stockholm
18-24 July 2013**



Contribution ID: 619

Type: **Poster Presentation**

A new detector for deep inelastic physics

The Large Hadron Electron Collider (LHeC) is a proposed facility which will exploit the LHC beams for electron-proton/nucleus scattering, using a new 60 GeV electron accelerator. A detector concept is presented for the measurement of precision deep inelastic scattering phenomena including the reconstruction of Higgs decay final states with maximum acceptance. An overview is also given on the chosen technologies as well as steps towards simulating the LHeC detector. Aspects are also presented for measurements of forward (p,n) and backward particle (e,y) production as is required for diffractive and precision DIS physics.

Authors: SOUTH, David Michael (Deutsches Elektronen-Synchrotron (DE)); ARMESTO PEREZ, Nestor (Universidade de Santiago de Compostela (ES))

Track Classification: Detector R&D and data handling