



Contribution ID: 201

Type: Parallel Session Talk

Status of the measurement of the flavor dependence of light-quark sea in the SeaQuest experiment

Tuesday 9 April 2019 15:20 (20 minutes)

E-906/SeaQuest is a fixed-target experiment at Fermilab designed to measure the flavor dependence of the light-quark sea in nucleons at high Bjorken- x . Previous experiments have shown a surprising drop of the \bar{d}/\bar{u} ratio at high Bjorken- x and SeaQuest was designed to extend the measurement to higher Bjorken- x with a 120 GeV proton beam. The Drell-Yan process is used as a probe of nucleon's sea quark distributions using liquid hydrogen and deuterium targets. By detecting forward Drell-Yan events ($x_F > 0$) the anti-quark distribution of the nucleon can be measured. Data collection has been completed and extensive studies to determine the various contributions of the dimuon yields are being carried out. The status of the analysis towards a \bar{d}/\bar{u} measurement up to Bjorken- $x \sim 0.45$ will be reported.

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Session Classification: WG1: Structure Functions and Parton Densities

Track Classification: WG1: Structure Functions and Parton Densities