

# DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 146

Type: **Parallel talk**

## **Drell-Yan and charmonium production in p+p and p+d interaction at 120 GeV from the SeaQuest experiment**

*Tuesday, 28 March 2023 17:10 (20 minutes)*

SeaQuest has measured dimuon events from the interaction of 120 GeV proton beam on liquid hydrogen and deuterium targets with dimuon mass between 2 and 8 GeV. These dimuon events contain both the Drell-Yan process and the charmonium ( $J/\psi$  and  $\psi'$ ) production. The first result of the Drell-Yan  $(p + d)/2(p + p)$  cross section ratio, based on the analysis of a fraction of the collected data, has provided new information on the light sea quark asymmetry. Analysis of the entire data set to extract the  $\bar{d}/\bar{u}$  ratio is currently underway, and the status of this analysis will be reported. Unlike the Drell-Yan process which probes the antiquark distributions in the nucleons, the charmonium production is sensitive to both quark and gluon distributions. The status of the charmonium analysis will also be discussed.

### **Submitted on behalf of a Collaboration?**

Yes

### **Participate in poster competition?**

**Primary author:** LEUNG, Ching Him (University of Illinois at Urbana-Champaign)

**Presenter:** LEUNG, Ching Him (University of Illinois at Urbana-Champaign)

**Session Classification:** WG 1

**Track Classification:** WG1: Structure Functions and Parton Densities