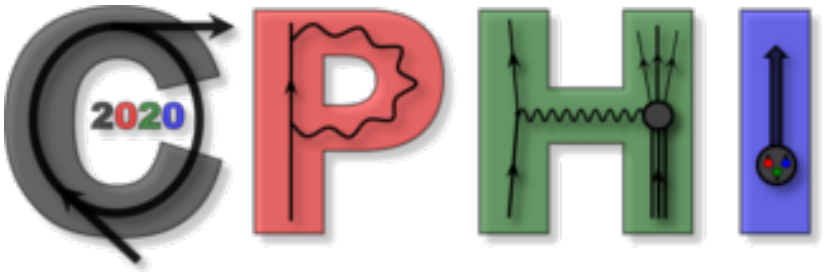

Contribution ID: **5** Type: **not specified**

Probing nucleon's structures using Drell-Yan process with unpolarized/polarized targets at Fermilab

Tuesday 4 February 2020 14:00 (25 minutes)

The mysterious asymmetry of the anti-quarks inside nucleon remains to be investigated. The experiment SeaQuest, with unpolarized targets, aims to do so. The experiment finished data collection in 2017. A preliminary result will be given in this presentation. The spin structure of the nucleon remains a mystery. Recent studies suggest that the orbital angular momentum of sea quarks could significantly contribute to the proton' s spin. The SpinQuest will access the anti-quark Sivers functions using polarized NH3 and ND3 targets. A non-zero asymmetry, observed in SpinQuest, would be a strong indication of non-zero sea-quark orbital angular momentum. The SpinQuest can also probe the sea quark's transversity as well as the tensor charge of polarized ND3. The status of the SpinQuest preparation will be presented.

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Session Classification: Afternoon