## Dark photons at SeaQuest E906 Experiment

Monday, 8 June 2015 12:00 (15 minutes)

SeaQuest is a fixed target Drell-Yan experiment that uses the 120-GeV proton beam extracted from the Main Injector at Fermilab to probe the sea structure of the nucleon. The SeaQuest forward spectrometer is optimized for detecting the high rate di-muon pairs arising from the Drell-Yan process.

Protons could also interact with the beam dump and generate massive dark gauge bosons or darkphotons. SeaQuest takes advantage of Proton Bremsstrahlung and \eta decay processes to search for dark photons that might have been generated in the Iron beam dump and which decay into dimuons. In this talk, I will mention about the physics motivation to study dark matter and the role of SeaQuest in searching for dark photons.

## Is this an abstract for a New Perspectives presentation?

Yes

## Is this an abstract for a Users Meeting Poster?

Yes

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