

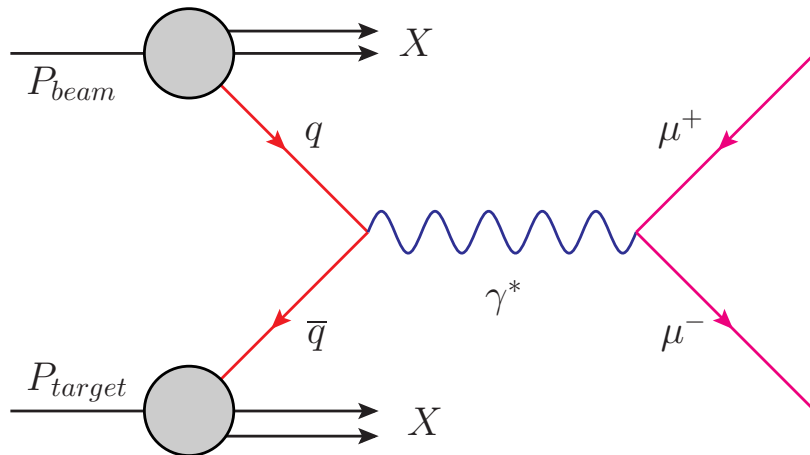
Tracking Method of Charged Particles for SeaQuest Experiment

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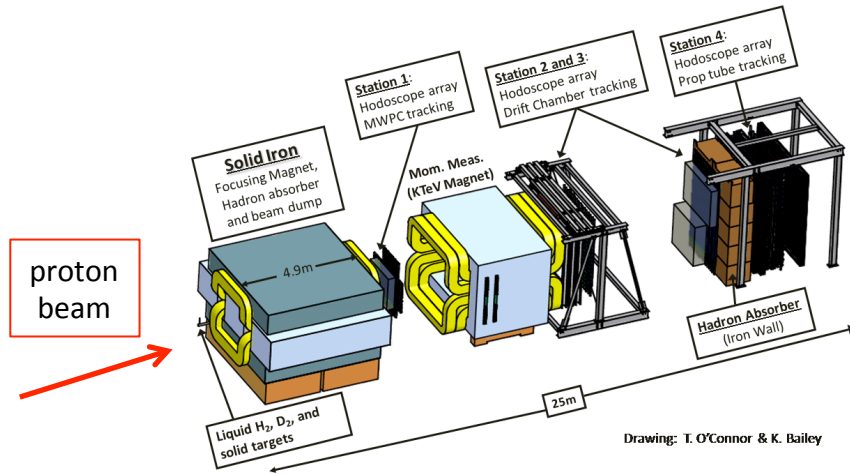
SeaQuest Experiment is a fixed target experiment using Fermilab's 120 GeV proton beam.
The purpose is to measure the structure of nucleons.

Drell-Yan process

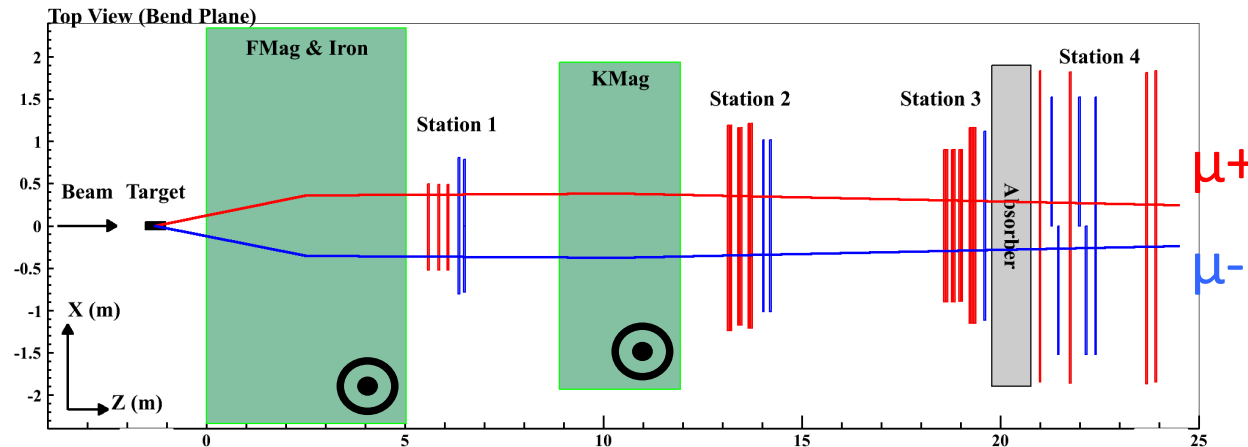


- The Drell-Yan process is a quark-antiquark annihilation to a virtual photon followed by a muon-antimuon pair creation.
- The muons are measured at SeaQuest Experiment.

Setup for SeaQuest Experiment



- The spectrometer has 2 magnets and 4 tracking stations for charged particles.
- Magnets change the direction of muons. The momenta are determined by measuring the curvature of muons.
- The hits from St.1, St.2 and St.3 are used to track muons



- A track is built at each station first.
- All tracks are combined to build a full track through all the stations.
- Tracking algorithm has been developed to effectively determine the full track.

In the poster, I will explain the tracking method of charged particles for SeaQuest Experiment in detail.