

Avast! SeaQuest Charts the Nucleon Sea at Fermilab

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SeaQuest is a running, fixed-target experimental program to study nucleon structure at Fermilab which began taking data in March 2014. The current SeaQuest experiment, E906, records unpolarized Drell-Yan and J/Psi events produced by 120 GeV protons from the Main Injector impinging on targets of hydrogen, deuterium, carbon, iron, and tungsten. These data will address two stubbornly unexplained observations: the light anti-quark flavor asymmetry and the EMC effect. Understanding the former is crucial to explaining the origin of the nucleon sea. The latter is an apparent modification in a nucleon's structure when it is in a nucleus and has evaded a consensus explanation for over 30 years. In this talk, I describe the experimental program and show previews of these flagship measurements.

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