## APR12-2012-000714

Abstract for an Invited Paper for the APR12 Meeting of the American Physical Society

## A new high-energy electron microscope to study QCD RICHARD MILNER, MIT

Physicists concerned with understanding the fundamental quark and gluon structure of atomic nuclei have identified a new high-energy electron microscope as a key tool with which to make progress. A high luminosity electron-ion collider with both polarized and nuclear beams would open a new window on the virtual particles of QCD, namely the sea quarks and gluons. The talk will summarize the scientific arguments that motivate this new capability.