Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

Hadronic parity violation in three-nucleon systems[1] MATTHIAS SCHINDLER, University of South Carolina — Parity-violating interactions between nucleons are the manifestation of an interplay of strong and weak interactions between quarks in the nucleons. Because of the short range of the weak interactions, these parity-violating forces provide a unique probe of low-energy strong interactions. Theoretical calculations in three-nucleon systems based on effective field theory methods will be presented. In addition to a number of parity-violating observables in nucleon-deuteron scattering, I will also discuss the role that possible parity-violating three-nucleon interactions may play, which would severely complicate a consistent theoretical understanding of hadronic parity violation in few-nucleon systems.

[1]Support by the US Department of Energy under Grant no. DE-SC0010300 is gratefully acknowledged.

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Date submitted: 29 Jun 2014 Electronic form version 1.4