

Abstract Submitted  
for the APR12 Meeting of  
The American Physical Society

**Towards a new study of the electron-neutrino angular correlation in the decay of trapped  ${}^6\text{He}$** <sup>1</sup> ANDREAS KNECHT, University of Washington,  ${}^6\text{HE}$  COLLABORATION — We are pursuing a program to search for new physics in the form of tensor contributions to the well established vector and axial-vector structure of the weak interaction. Such contributions potentially show up in the measurement of the angular correlation between the electron and neutrino momenta in nuclear beta decay. Our system of choice is the pure Gamow-Teller decay of the nucleus  ${}^6\text{He}$ . We produce and transfer  $\sim 10^9$  atoms/s to our trapping system consisting of a Zeeman slower and a magneto-optical trap (an additional dipole trap will be added later). This talk will describe our recent successful efforts to trap  ${}^6\text{He}$  and give an outlook on the next steps and plans for the full experiment.

<sup>1</sup>This work is supported by DOE, Office of Nuclear Physics under grants DE-FG02-97ER41020 and DE-AC02-06CH11357.

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Date submitted: 10 Jan 2012

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