Analysis of Systematic Errors in Experimental Measurements of Fundamental Symmetries with Polarized Neutrons

JONATHAN SERPICO, IVAN NOVIKOV, Western Kentucky University — Measurements of the fundamental symmetries violation in nuclear reactions with polarized neutrons can provide valuable information on hadronic weak interaction. We have conducted an analysis of systematic sources of error in the measurement of symmetry violation effects due to neutron energy variations and depolarization in the beam. The neutron energy dependence of various observables was calculated in the framework of nuclear resonance reaction theory.

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