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Analysis of P- and T-violation effects in Experiment with Polarized Neutron Propagation through Two Polarized Targets IVAN NOVIKOV, Western Kentucky University, WILLIAM SNOW, Indiana University, LARS HEBENSTIEL, Western Kentucky University, NOPTREX COLLABORATION[1] — The NOPTREX collaboration is developing several experimental schemes to measure P- and T-violating effects in propagation of polarized neutron beam through a polarized target. As it was shown in [1], P- and T-violating effects are enhanced in a vicinity of a p-resonance by 5 – 6 orders of magnitude. We analyze an experimental scheme with a polarized ^{139}La target split along the beam direction, polarized in opposite directions along the x-axis, with a magnetic field precession coil in between to precess the neutron polarization by 180^{o}. Using technique introduced in [2], we analyze the peak value of the asymmetry and its dependence on neutron energy. To compare this separated-target experimental scheme to other possible ways to measure P- and T-violation proposed in [3], [4], we estimate relative error of the measured experimental effect and several systematic errors.

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