Could *CP*- and *T*-violation be tested in polarized proton collisions at RHIC?

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The measurable asymmetries due to *CP*- and/or *T*-violation in charged and neutral current leptoproduction by polarized protons are discussed.

Just in months ahead, the first high luminosity collisions of two polarized proton beams are expected to occur at RHIC in BNL at $\sqrt{s}$ up to 500 GeV, bringing a new quality to the collider physics. In the collisions of polarized particles, the presence of two axial vectors of initial polarizations, fully controlled by experimenters, may dramatically increase the number of available for tests *T*-odd correlations which could relatively easily be measured. In this report, two examples of the measurable *T*-odd asymmetries for hadronic leptoproduction via vector W- and Z-bosons, $q\overline{q} \to W^{\pm} \to l\overline{l}$ and $q\overline{q} \to Z^0 \to l\overline{l}$, are shown. The distinguishability of the "true" *CP*-violating asymmetries from the "spurious" *CP*-even ones is discussed. Some estimates for the limits to *CP*-odd amplitudes, arising from already accomplished experiments, are provided. *Supported in part by the U.S. Department of Energy Grant DE-FG0292ER40713.*