

# **The (A)Symmetry of Time and Space**

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A new source of time reversal violation (TRV) is one of the most coveted ideas in all of nuclear, particle, and astrophysics as it is an essential requirement for the matter-antimatter asymmetry we observe in the universe. The NOPTREX (Neutron Optics Parity and Time Reversal EXperiment) collaboration proposes to conduct a sensitive search for TRV in polarized neutron transmission through polarized nuclei, exploiting properties of low energy neutron-nucleus resonances which amplify TRV. The same mechanisms known to generate parity violation (PV) can also enhance TRV effects. We will discuss some of the endeavors to search for PV in heavy nuclei for candidates for TRV as well as ongoing TRV searches at various neutron sources around the world.