

## Atomic and Molecular P- and P,T-Violation Experiments

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In this review talk, I will briefly discuss the ongoing atomic and molecular experiments that measure weak-interaction induced parity violation (especially, the subtle nuclear-size and nuclear-spin dependent effects), and search for permanent electric dipole moments that are expected to arise from simultaneous violation of parity and time-reversal invariance. Several efforts in this field involve cold and/or trapped atoms, molecules, or neutrons. In the final part of the talk, I will present in more detail the recent measurement at Berkeley of a parity-violation effect in atomic ytterbium exceeding its counterpart in cesium (i.e., the atom where the most significant parity violation measurements have been made to-date) by about two orders of magnitude. Such large effect had, indeed, been predicted theoretically, and opens a realistic opportunity for the study of the isotopic and hyperfine-structure dependent parity-violation effects.