

## **T-Violation and the search for a permanent electric dipole moment of the mercury atom**

There has been exciting progress in recent years in the search for a spin-aligned, permanent electric dipole moment (EDM) of atoms, molecules, and the neutron. An EDM can exist only if time reversal symmetry is violated. Although such a dipole has not yet been detected, highly touted theories of possible new physics, such as Supersymmetry, predict the existence of EDMs within reach of modern experiments. After I give a brief description of the newest version of our own EDM experiment with mercury atoms, we will head to the lab to see this experiment - an example of 'table-top' high-energy physics.