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### **Search for an Electric Dipole Moment (EDM) of $^{199}\text{Hg}$ <sup>1</sup>**

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The observation of a non-zero EDM of an atom or elementary particle, at current levels of experimental sensitivity, would imply CP violation beyond the CKM matrix of the standard model of particle physics. Additional sources of CP violation have been proposed to help explain the excess of matter over anti-matter in our universe and the magnitude of  $\Theta_{QCD}$ , the strength of CP violation in the strong interaction, remains unknown. We have recently completed a set of measurements on the EDM of  $^{199}\text{Hg}$ , sensitive to both new sources of CP violation and  $\Theta_{QCD}$ . The experiment compares the phase accumulated by precessing Hg spins in vapor cells with electric fields parallel and anti-parallel to a common magnetic field. Our new result represents a factor of 5 improvement over previous results. A description of the EDM experiment, data, systematic error considerations will be presented.

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