

## The Electron and Its Dipole Moments: Most Stringent Tests of the Standard Model

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The most precise measurement of the properties of an elementary particle is the magnetic dipole of the electron which we have been able to measure to 3 parts in  $10^{13}$ . Perhaps the greatest triumph of the Standard Model of particle physics is a prediction of the measured value to nearly this precision. The electron's electric dipole moment provides an important constraint on extensions to the Standard Model such as supersymmetric models. Our ACME collaboration is closing in on a more sensitive measurement of this moment, profiting from the huge electric field within the ThO molecule.

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