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Recent Results on the Electric Dipole of ^{199}Hg Atoms[1]

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The excess of matter over antimatter in the universe requires a source of CP violation beyond that contained in the standard model of particle physics. Electric dipole moment (EDM) measurements of elementary particles and atoms provide a sensitive means to search for CP violation beyond the standard model. Our group has recently reported a new upper limit on the EDM of ^{199}Hg, four times more sensitive than previous results on ^{199}Hg. The techniques used in the experiment will be described as well as our major findings and their implications on proposed CP violating parameters.

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