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Current status and future directions for the PbO electron EDM experiment DAVID DEMILLE, PAUL HAMILTON, SARAH BICKMAN, YONG JIANG, HUNTER SMITH, AMAR VUTHA, Yale University — The results from the first data in our search for a permanent electric dipole moment (EDM) of the electron using a lead oxide (PbO) vapor cell will be presented. We will discuss the current statistical sensitivity of the experiment and methods we've used to increase it. We will also discuss near term improvements using a second laser to move our fluorescence detection to the blue as well as the long term prospects of a higher sensitivity experiment utilizing a long microwave absorption cell.

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