

Upcoming WIDG Seminar

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Improving the search for the electron's electric dipole moment in ThO

Tuesday, September 22, 2015, 12:00 pm – 1:00 pm
Wright Laboratory (WL), EAL 108 Conference Room

Pizza served at 11:45

Last year, the ACME collaboration published a new limit on the electric dipole moment of the electron using a beam of ThO molecules. We are currently upgrading our apparatus to increase the flux of molecules in the “science state” by two orders of magnitude and achieve a factor of 10 improvement in statistical sensitivity. Work is ongoing to produce molecules at a higher rate using a thermochemical beam source and to populate the science state more efficiently via a coherent state transfer method (STIRAP). In this talk, I will describe the significance of the electron’s electric dipole moment, our measurement scheme, and our procedure to exhaustively search for systematic errors.

Host: Ariana Hackenburg