Physics Seminar

"JILA's search for the electron's Electric Dipole Moment (eEDM) to probe physics beyond the standard model"

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Increasingly precise measurements of the permanent electric dipole moment of the electron (eEDM) probe physics beyond the standard model and shed light on open questions such as the baryon asymmetry and the nature of dark matter. At JILA, we use a cloud of molecular ions held in an RF trap to measure the eEDM. In this talk, I will briefly outline how the eEDM is measured, including details from the current generation (Generation II) of the JILA eEDM experiment, which is expected to produce a result soon. Then I will detail progress in the next generation (Generation III) of the experiment and cover its expected improvements from Generations I and II.

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