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Xe/Hg dual-comagnetometer for the TRIUMF neutron EDM experiment

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In support of the neutron electric dipole moment (EDM) experiment at TRIUMF, we are developing a $^{129}\text{Xe}/^{199}\text{Hg}$ dual-comagnetometer that can monitor the magnetic field drift and reduce the uncertainties arising from geometric phase effects caused by inhomogeneous fields.

Using UV light sources, we will excite transitions in ^{129}Xe and ^{199}Hg suitable for detection of their spin precession.

Initial spin polarization of these species will be achieved via optical pumping.

This talk will report our current status and future plans.

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