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### **The Search for Electric Dipole Moments in the FRIB Era**

JAIDEEP SINGH, Michigan State University

Experimental tests of fundamental symmetries using nuclei and other particles subject to the strong nuclear force have led to the discovery of parity (P) violation and the discovery of charge-parity (CP) violation. It is believed that additional sources of CP-violation may be needed to explain the apparent scarcity of antimatter in the observable universe. A particularly sensitive and unambiguous signature of both time-reversal- (T) and CP-violation would be the existence of an electric dipole moment (EDM). The current generation of EDM searches in a variety of complimentary systems have unprecedented sensitivity to physics beyond the Standard Model. My talk will focus on diamagnetic systems such as Xe-129 and Hg-199 as well as certain rare diamagnetic atoms such as Ra-225 which have pear-shaped nuclei. This uncommon nuclear structure significantly amplifies the observable effect of T, P, CP-violation originating within the nuclear medium when compared to isotopes with nearly spherical nuclei such as Hg-199. Certain isotopes of Radium (Ra), Protactinium (Pa), and Radon (Rn) are all expected to have enhanced atomic EDMs and will be produced in abundance at the Facility for Rare Isotope Beams currently under construction at Michigan State University. I will describe the present status of ongoing EDM searches in Xe-129, Hg-199, and Ra-225 as well as the prospects for next generation searches for time-reversal violation in both atomic and molecular systems in the FRIB-era.