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### **Recent Advances and Future Prospects in Fundamental Symmetries<sup>1</sup>**

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A broad program of initiatives in fundamental symmetries seeks answers to several of the most pressing open questions in nuclear physics, ranging from the scale of the neutrino mass, to the particle-antiparticle nature of the neutrino, to the origin of the matter-antimatter asymmetry, to the limits of Standard Model interactions. Although the experimental program is quite broad, with efforts ranging from precision measurements of neutrino properties; to searches for electric dipole moments; to precision measurements of magnetic dipole moments; and to precision measurements of couplings, particle properties, and decays; all of these seemingly disparate initiatives are unified by several common threads. These include the use and exploitation of symmetry principles, novel cross-disciplinary experimental work at the forefront of the precision frontier, and the need for accompanying breakthroughs in development of the theory necessary for an interpretation of the anticipated results from these experiments. This talk will highlight recent accomplishments and advances in fundamental symmetries and point to the extraordinary level of ongoing activity aimed at realizing the development and interpretation of next-generation experiments.

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