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Electroweak Nuclear Physics

ROBERT MCKEOWN, Jefferson Lab

An important goal of nuclear physics is to test the standard model of electroweak interactions and attempt to discover new phenomena. One aspect of this research is the study of properties of neutrinos, which has produced the only laboratory evidence to date for physics beyond the Standard Model. New experiments are planned to further explore the properties of neutrinos. In addition, new experimental programs are poised to explore the Terascale, where massive new particles in the TeV range are hoped to be discovered. These new experiments include measurements of fundamental symmetries that can help reveal the nature of new physics at the Terascale (and beyond) and provide complementary information to direct searches for new particles at the Large Hadron Collider. I will present an overview of the prospects for new discoveries in these areas of experimental research.