APR20-2020-001323

Abstract for an Invited Paper for the APR20 Meeting of the American Physical Society

## Status and prospects of short-baseline neutrino oscillation experiments

XIAO LUO, University of California, Santa Barbara

The discovery of neutrino oscillations (2015 Nobel Prize) and measurement of oscillation parameters have established a beautiful  $3-\nu$  paradigm in the past decades. However, anomalies have been observed from accelerator-based neutrino, reactor, and Gallium experiments, hinting at possible new physics beyond the Standard Model. Guided by these experimental hints, a comprehensive short baseline neutrino oscillation program is actively engaged in directly addressing the origin(s) of the previously observed anomalies, and explore a wide range of new physics models. This review talk will describe the experiments in the short-baseline neutrino oscillation program and their complementarity in searching for new physics. The latest results and future prospects of these experiments will be presented.