Abstract for an Invited Paper for the HAW09 Meeting of The American Physical Society

## Low-energy probes of physics beyond the Standard Model VINCENZO CIRIGLIANO, Los Alamos National Laboratory

I will discuss theoretical aspects of symmetry tests with low-energy probes. I will focus mostly on (i) beta decays and gauge universality tests; (ii) lepton flavor violation in the charged lepton sector; (iii) searches for CP violating sources beyond the Standard Model and their cosmological implications. In all cases, I will emphasize the complementarity between collider searches and low-energy probes in understanding fundamental interactions at the weak scale and beyond.