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Next generation neutron beta decay correlation experiments

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Neutron beta decay, in which a neutron decays into a proton, electron, and antineutrino, presents a number of observables which can be used to test the Standard Model. The correlations between decay product momenta with neutron spin or each other are sensitive to a small number of Standard Model parameters, and measurement of these correlations determine the underlying parameters. This talk presents an overview of upcoming experiments to measure neutron beta decay angular correlation parameters, chiefly A and a, the correlations between electron momentum and neutron spin, and between the electron and anti-neutron momenta, respectively, each sensitive to the nucleons weak-axial charge. Potential sources of systematic errors vary for these experiments, which will provide a check for underestimated systematic uncertainty. The precision goals of these experiments, if achieved, will enable stringent tests for Beyond Standard Model physics at the $\sim$10 TeV level.