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Particle physics with neutrons

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In the coming years, experiments using neutrons will continue to address important scientific questions in a wide range of fields. For particle physics and its ever growing interdependence with cosmology, elucidating how the observed matter/anti-matter asymmetry in the Universe came to be remains one of the most important goals. Two of the conditions necessary to explain this asymmetry involve violations of time-reversal symmetry and/or CP symmetry and baryon number. Efforts to study the former include measurements of the neutron electric dipole moment while the latter involve searches for the conversion of free neutrons into antineutrons and/or sterile neutrons. Furthermore, there exists many ongoing experiments using neutrons to conduct precision tests for new physics beyond the Standard Model. Examples of some of these are searches for new forces and extra dimensions and much improved measurements of the observables in free neutron beta-decay. Because the list of particle physics experiments using neutrons is rather extensive, in this talk I will review only some of current experimental efforts in this broad and burgeoning field.