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Searching for the electric dipole moment of the neutron - a landscape overview

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We live in a matter dominated Universe. Naively assuming a preference of nature for symmetries, it's somewhat unexpected that we observe much larger amounts of matter over antimatter. Asking our very successful Standard Model of Particle Physics for insight on this Baryon Asymmetry in the Universe (BAU), we learn that the observed asymmetry is actually even much larger than expected - by several orders of magnitude. The failure of the Standard Model to reproduce the magnitude of the observed asymmetry is one of the most intriguing problems of contemporary physics.
One way to investigate this asymmetry is to look for CP-symmetry violating processes –CP symmetry relates matter to antimatter and according to the Sakharov criteria is a condition for our observed BAU. A permanent non-zero electric dipole moment (EDM) of the free neutron violates T and P symmetry. If one assumes CPT to be a good symmetry of nature, T-violation is equivalent to CP-violation. Finding or improving the sensitivity for the so far elusive neutron EDM will thus shed light on the structure of our Universe and its underlying fundamental interactions.
In this presentation I will give an overview of the worldwide landscape of neutron EDM searches and briefly introduce the differing techniques which are applied in those highly sensitive and precise experiments.

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