



Contribution ID: 179

Type: **Invited Talk**

An Overview of the n2EDM Experiment at PSI

Monday, 17 October 2022 12:05 (30 minutes)

The Standard Model is a well-tested and successful theory of particle physics. However, it does not fully explain the lack of anti-matter observed in the universe. A possible mechanism that could explain this is from new sources of CP violation. This could lead to the existence of a permanent electric dipole moment (EDM) in fundamental particles, through beyond Standard Model interactions. Historically, neutrons have been very successful at setting stringent limits on beyond Standard Model theories. The current limit on the neutron EDM is set by our collaboration, $|d_n| < 1.8 \times 10^{-26}$ ecm (C.L. 90%). Presently, we are constructing the next generation experiment, n2EDM. With this, we aim to achieve an order of magnitude improvement in the sensitivity of the neutron EDM. This presentation will provide an overview of the experiment as well as the status towards commissioning for data taking.

Primary author: THORNE, Jacob (Universit t Bern)

Presenter: THORNE, Jacob (Universit t Bern)

Session Classification: Session