



Contribution ID: 12

Type: **Oral Presentation**

## Next measurement of the neutron electric dipole moment: n2EDM at PSI

The world's leading measurement of the neutron's electric dipole moment (EDM) is currently ongoing at the Paul Scherrer Institute (PSI): the n2EDM experiment. n2EDM will deliver, at minimum, an order of magnitude better sensitivity as compared to current limits on the neutron EDM. This increased sensitivity on the neutron EDM will provide stringent constraints on time-reversal violating processes and deeply probe physics beyond the Standard Model (BSM), furthering our understanding on the origins of the baryon asymmetry of the universe.

This talk will highlight the recent achievements and successes during commissioning –from high-voltage operation to magnetic-field uniformity. I will also introduce new techniques we have developed to characterize our apparatus, and emphasize how n2EDM will reach a ground-breaking sensitivity of  $10^{-27}$  e.cm.

**Author:** SEGARRA, Efrain Patrick (Paul Scherrer Institut (PSI))

**Presenter:** SEGARRA, Efrain Patrick (Paul Scherrer Institut (PSI))

**Session Classification:** Parallel session

**Track Classification:** Fundamental Symmetries and Interactions