



ID de Contribution: 77

Type: **Plenary Talk**

Neutron EDM at PSI

Search for Electric Dipole Moments (EDM) is a very powerful tool to probe physics beyond the Standard Model. In any Standard Model extension EDM can be calculated, these values can be compared to the experimental limits and therefore SM extensions can be validated. The nEDM@PSI collaboration recently obtain the current best limit [1] at $|dn| < 1.8 \times 10^{-26}$ ecm (90% CL). This experimental limit is far away from the SM value, still any extension of the SM give nEDM values which are in the range of new nEDM experiments. At the Paul Scherrer Institute (PSI), Villigen, Switzerland, where a ultra cold neutron source is running (2011), By using room temperature apparatus and ultra cold neutrons our collaboration improved the previous limit with a very string control on systematics. We are setting up a next generation experiment, n2EDM with a baseline goal of 10^{-27} ecm. We will present the experiment status, improvements and discuss the ongoing R&D effort on a new spectrometer schedule to run in 2023.

Type of Contribution

Collaboration Name(s), if any

BibTex Reference(s)

Orateur: Prof. BAN, Gilles (LPC Caen)

Classification de Session: BSM and Dark Sector Physics