ID de Contribution: **87** Type: **Invited presentation**

Through the looking glass of the Standard Model with radioactive ion beams

jeudi 28 septembre 2023 16:00 (25 minutes)

The use of exotic states of matter allows us to probe the underlying symmetries of the universe to ever greater precision and expose shortcomings of the Standard Model of particle physics (SM), arguably the most successful physical theory created to date. Radioactive ion beams (RIB), in particular, significantly expand the number of available experimental systems to address the SM's lack of sufficient CP-symmetry violation to explain the matter-antimatter asymmetry, the unknown mass mechanism of neutrino's, the nature of dark matter and a host of equally puzzling questions in the weak interaction. In this talk, we will provide an overview of the current landscape and how RIBs intersect with it, and focus on a selection of experiments using novel techniques and systems taking advantage of upgraded facilities worldwide.

Auteur principal: Dr HAYEN, Leendert (LPC Caen)

Orateur: Dr HAYEN, Leendert (LPC Caen)

Classification de Session: Fundamental interactions and symmetries

Classification de thématique: Fundamental Interactions