## Joint Annual Meeting of SPS and ÖPG 2019



Contribution ID: 254

Type: Talk

## [311] Momentum Spectroscopy of Neutron Beta Decay Products with NoMoS

Tuesday 27 August 2019 17:00 (15 minutes)

Precision experiments in free neutron beta decay allow probing for physics beyond the Standard Model in a complementary manner to searches conducted at the LHC. NoMoS, the neutron decay products momentum spectrometer, aims to measure the momentum spectra of the charged decay products (electron and proton) in neutron beta decay with high precision. The spectrometer utilizes the concept of an  $\mathbf{R} \times \mathbf{B}$  drift of a charged particle in a uniformly curved magnetic field to map its momentum to a drift distance. In this talk, a status update alongside the measurement and detection principles of the experiment will be presented.

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Session Classification: Nuclear, Particle- & Astrophysics

Track Classification: Nuclear, Particle- and Astrophysics (TASK)