

Status Update of NoMoS

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We present a new method of spectroscopy, utilizing a drift effect to disperse charged particles in a uniformly curved magnetic field [1]. The curved field results in a drift of the charged particles perpendicular to the radius of the curvature and to the magnetic field, which is proportional to the particle's momentum. A spatial-resolving detector will determine the momentum spectra. The first realization, called NoMoS (Neutron decay prOducts MOmentum Spectrometer) [2], will measure correlation coefficients in free neutron beta decay to test the Standard Model of particle physics and to search for physics beyond [3,4]. Currently, the focus is on the design and the construction of the magnet system.

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