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Free neutron beta-decay experiment PERC

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High-precision measurements of angular correlations in free neutron beta-decay address a number of questions which are at the forefront of particle physics. PERC (Proton Electron Radiation Channel) is the new generation beta-decay experiment. Its aim is to measure correlation coefficients with high accuracy (10-4) and the experiment is currently under construction at the TUM FRM II/MLZ.

In this talk some results of the PERC's predecessor, namely PERKEO-III, and the status update for PERC will be presented. Design study of the CREScent experiment, a proof-of principle experiment aiming to combine the CRES (Cyclotron Radiation Emission Spectroscopy) technique with the signal amplification qualities of an RF cavity, will be introduced.

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