

MESA and the low-energy precision frontier

The intensity frontier offers a complementary approach to high-energy colliders, as high-precision measurements can provide unprecedented constraints on new physics, fundamental interactions, and the structure of matter. The Mainz Energy-recovering Superconducting Accelerator (MESA) is a cutting-edge facility that will push the limits of high-intensity, low-energy hadronic physics. MESA's flagship experiments, MAGIX and P2, will carry out high-precision measurements of the weak mixing angle, nucleon form factors, and nuclear weak radii and cross sections. These will enable stringent tests of the Standard Model, searches for dark matter, and further our understanding of the electromagnetic structure of nucleons and nuclei.

Author: KUTZ, Tyler (Johannes Gutenberg University Mainz)

Presenter: KUTZ, Tyler (Johannes Gutenberg University Mainz)