

Fakultät für Physik

Isotopenphysik

INVITATION
for a
VERA-SEMINAR
with

Johannes Lachner

Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Dresden, Germany

Implementation of new ion cooler for isobar suppression at HZDR

In summer 2025, the AMS system HAMSTER (Helmholtz Accelerator Mass Spectrometer Tracing Environmental Radionuclides) will be fully installed at the Helmholtz-Zentrum Dresden-Rossendorf in a new laboratory building. The 1 MV facility is delivered by NEC and includes additional capabilities for stable isotope analysis with injection from a SIMS (Secondary Ion Mass Spectrometer) and an injection line for the purpose of isobar suppression with an ion cooler. The part of the injector beamline including the ion cooler is already in operation since late 2024. The modular design of the so-called Ion Linear Trap for Isobar Suppression (ILTIS) with segmented electrodes should allow for more control of the beam energy during the passage of the particles through the linear Paul trap.

The presentation will cover an overview of the new AMS system with particular emphasis on the ion cooler injection line and first tests of its performance regarding beam characterization, transmission, and suppression of isobars.

Thursday, 10.04.2025, 16:30 o'clock

1090 Wien, Währinger Str. 17, "Kavalierstrakt", 1. Stock, Victor-Franz-Hess Hörsaal

K. Hain R. Golser M. Martschini