



INVITATION

for a

VERA - SEMINAR

with

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**Mass, decay and optical spectroscopy
of actinide isotopes at IGISOL
(Ion Guide Isotope Separation On-Line)**

The actinides hold long-standing interest for nuclear physicists, hosting a rich variety of nuclear and atomic phenomena. However, a paucity of nuclear structure information exists above radium, due to material scarcity and the complex atomic structure of actinides. Short-lived isotopes require specialized production techniques combined with highly sensitive detection techniques. A research program is underway using the IGISOL facility, at the Accelerator Laboratory of the University of Jyväskylä (Finland) to study the actinide nuclei using mass measurements, decay spectroscopy and high-resolution optical spectroscopy. To produce the radioactive actinide ion beams, a variety of techniques have been investigated including laser ion sources and accelerator-based production. The successful use of these techniques requires an extensive combination of chemistry, atomic physics, and nuclear physics of which an overview will be presented in this talk.

Thursday, 01.06.2023, 16:30 o'clock

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