

## Fakultät für Physik

Isotopenphysik

INVITATION
for a
VERA-SEMINAR
with

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## From Floodplains to Fallout – Extracting Vienna's signature from Danube river plain archives

Human activity has become a key external forcing factor on Earth's environmental and geological processes, leaving traces in geological archives. This study examines the anthropogenic impact of Vienna on its peri-urban floodplain sediments in the National Park Donau-Auen, where direct human intervention is minimal. Using sedimentological, geochronological, and geochemical methods, we analyze sedimentary records to identify signals of major human influence, including 19th-century river channelization and 20th-century hydropower construction, and how they affected the sediment balance. A key method in this study is the use of geochronological markers from the Great Acceleration (1950s), including artificial radiogenic nuclides and heavy metals, to correlate sedimentological changes with major human interventions and characterize the anthropogenic fingerprint of Vienna in floodplain archives.

Thursday, 03.04.2025, 16:30 o'clock

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