



EINLADUNG

zum

VERA - SEMINAR

von

**Oana Gâza**  
and  
**Tiberiu Sava**

Horia Hulubei – National Institute for Physics and Nuclear Engineering,  
Bucharest, Romania

## **Research at the Centre for Accelerator Mass Spectrometry (AMS) in Bucharest**

The AMS center in Bucharest was founded in 2013, relying on a High Voltage 1 MV Tandetron particle accelerator and the associated sample preparation laboratory. With this multi-isotopic AMS machine the routinely analyzed species are  $^{14}\text{C}$ ,  $^{10}\text{Be}$ ,  $^{26}\text{Al}$  and  $^{129}\text{I}$ , while recently different tests were performed to determine isotopic ratios in actinide species ( $^{239,240,242}\text{Pu}$ ,  $^{236}\text{U}$ ). Radiocarbon remains the isotope with the largest share within our measurements, enabling studies in archaeology, environment and cultural heritage. A niche position in our radiocarbon analysis is represented by the dating of single amino-acids resulting from the separation of collagen extracted from potentially risky bone material using a High Pressure Liquid Chromatography (HPLC) method. Beside the radiocarbon applications we present also some research examples of using isotopic ratios of  $^{10}\text{Be}/^9\text{Be}$ ,  $^{26}\text{Al}/^{27}\text{Al}$  and  $^{129}\text{I}/^{127}\text{I}$  for paleo-reconstruction of glaciers and oceanography, respectively.

**Donnerstag, 24. Januar 2019, 16:30 Uhr**

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