

## Fakultät für Physik

## Isotopenforschung und Kernphysik

EINLADUNG

zum

VERA-SEMINAR

von

## **Dorothea SCHUMANN**

Paul Scherrer Institut Villingen, Switzerland

## **Exotic Radionuclides from Accelerator Waste** for Science and Technology (ERAWAST)

ERAWAST is a project aimed to exploit accelerator waste material - mainly accelerator components irradiated with high-energetic protons - for the production of rare exotic radionuclides. It was initiated by the RadWasteAnalytics group of the Paul Scherrer Institute (Switzerland).

In first laboratory studies, the successful radiochemical separation of several radionuclides from several activated material had been demonstrated.

An overview on recent results as well as an outlook on future possibilities is given. The RadWasteAnalytics group at PSI could provide <sup>60</sup>Fe sufficient for two key experiments in nuclear physics and astrophysics: The determination of the neutron capture cross section at stellar energies and the re-determination of the half-life. Both experiments are completed, and the results are prepared for publication. Moreover, considerable amounts of <sup>44</sup>Ti, <sup>10</sup>Be and <sup>26</sup>Al were separated and are ready for use.

Development of a large-scale separation device able to provide amounts in the order of micrograms of the desired nuclides is foreseen.

Donnerstag, 19. März 2009, 16:30 Uhr

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

R. Golser W. Kutschera