INSTITUT FÜR ISOTOPENFORSCHUNG UND KERNPHYSIK
DER UNIVERSITÄT WIEN

E I N L A D U N G

zum

I N S T I T U T S S E M I N A R

von

Dag HANSTORP

Department of Physics, Göteborg University, Sweden

Negative Ions –Fragile Quantum Systems

The outermost electron in a negative ion does not experience any long range Coulomb attraction. Instead, core polarization induced by the extra electron stabilizes the ion. The correlated motion of the electrons require theoretical models that go beyond the independent particle approximation, and experimental investigations of negative ions can hence lead to an increased understanding of many-body effects. In this talk a review of experimental techniques exploring negative ions will be presented. Many of these techniques, such as accelerator technology, storage rings and synchrotron radiators, have their origin in nuclear physics Most of the work presented will be of fundamental nature, but I will also discuss how laser photodetachment of negative ions possibly could be used as a tool to improve the selectivity in Accelerator Mass Spectrometry (AMS).

Donnerstag, 27. April 2006, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Seminarraum von VERA**

R. Golser W. Kutschera