



EINLADUNG

zum

VERA - SEMINAR

von

**Walter Kutschera**

VERA-Laboratorium, Isotopenforschung und Kernphysik,  
Fakultät für Physik der Universität Wien

**Experimental searches for strange matter  
in nature with mass spectrometry**

Strange matter is a form of matter which consists of roughly equal number of up, down, and strange quarks. This matter may be stable or long-lived, and has been the subject of various theoretical and experimental investigations since about 30 years. Strange matter should be characterized by low charge and high mass. In particular, particles with a very low charge-to-mass ratio may exist in the form of anomalously heavy isotopes in ordinary matter. This is the basis of many experimental searches using mass spectrometric techniques, with and without accelerators. Other methods such as laser spectroscopy and Rutherford backscattering have also been applied. Although no evidence for strange matter in nature has yet been found, these searches will continue simply following the truism that 'if we do not search for these particles, we will not find them'. An overview of the current experimental situation will be presented.

**Donnerstag, 31. Oktober 2013, 16:30 Uhr**

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