universität wien

Fakultät für Physik

Isotopenforschung und **Kernphysik**

E I N L A D U N G

zum

V E R A - S E M I N A R

von

Karlheinz LANGANKE

Director of Research, GSI Darmstadt

A FAIR Chance for Nuclear Astrophysics

Massive stars end their lives in a supernova explosion triggered by the gravitational collapse of their inner core. Nuclear processes play a crucial role in the explosion, as for example the dynamics of the collapse is greatly determined by weak-interaction processes like electron captures on nuclei and neutrino-induced reactions. Supernovae are also the environment of fast explosive nucleosynthesis. This most likely includes the r-process by which half of the elements heavier than iron are produced. Very recently a novel nucleosynthesis process has been found, named the νp process. It should occur in each supernova producing medium-mass nuclei and might be the long searched-for origin of the protonrich Mo and Ru nuclides.

The talk will also highlight the exciting possibilities which the upcoming Facility for Antiproton and Ion Research FAIR will offer to the field of nuclear astrophysics.

Donnerstag, 19. Juni 2008, 16:30 Uhr

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

R. Golser W. Kutschera