



E I N L A D U N G

zum

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

von

**Rene REIFARTH**

Gesellschaft für Schwerionenforschung mbH (GSI), Darmstadt

**Direct and indirect measurements for nuclear  
astrophysics at FRANZ and GSI**

The Gesellschaft für Schwerionenforschung mbH (GSI) offers opportunities for direct and indirect measurements to study nuclear reactions of astrophysical interest on radioactive nuclei. Direct measurements, including  $(p,\gamma)$  and  $(\alpha,\gamma)$  reactions, are possible at the experimental storage ring, while the LAND facility allows to determine reaction rates via Coulomb-breakup and charge-exchange reactions.

The "Frankfurter Neutronenquelle am Stern-Gerlach-Zentrum" (FRANZ), which is currently under development, will be the strongest neutron source in the world in the astrophysically interesting neutron energy regime. It will be about 3 orders of magnitude more intense than the well-established neutron source at the Research Center Karlsruhe (FZK). FRANZ will allow direct measurements of neutron-induced reactions with radioactive samples.

**Donnerstag, 15. Jänner 2009, 16:30 Uhr**

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