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

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Institut für Experimentalphysik der Technischen Universität Graz

From Atoms to Clusters: Fundamental Properties at the Nanoscale

Nanoscience and nanotechnology have resulted in electronic and mechanical devices of nanometer size. Besides the shrunken size, new properties can arise that are caused by quantum mechanical effects and are studied by cluster physicists. As atoms are collected to form aggregates, interatomic forces determine the stability, the nuclear geometry, and the electronic structure of the small sample. Coupling between nuclear and electronic motion as well as many-body interactions must be included in the corresponding energy potentials to describe a cluster of atoms properly.

The lecture will present experimental results and their theoretical interpretation for different types of aggregates: 1. simple metallic species with delocalized valence electrons, and 2. helium nanodroplets that show signs of finite-size superfluidity.

Mittwoch, **9. Juni 2004, 16:30 Uhr**

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

P. Hille W. Kutschera