SONDERSEMINAR
MPQ/LMU

am:	**Montag, 28. Februar 2011**
Uhrzeit:	**10:00 s.t.**
spricht:	**Mr. Hannes Höffler** **Department of Molecular & Optical Physics** **Albert-Ludwigs-Universität** **Hermann-Herder-Str. 3** **D-79104 Mainz**
Thema:	**Triatomic Hydrogen** **Very Simple, but Full of Fascinating Physics**
Ort:	**Lehrstuhl Prof. T.W. Hänsch, Diskussionsraum** **Schellingstr. 4/ IIIrd floor,Raum H311,D-80799 München**

gez. Prof. T.W. Hänsch

Abstract

The talk will present the investigation methods, which we used in our group to get insight into the 3-particle-dissociation behavior of triatomic hydrogen. After a brief indroduction to the quantum mechanical description of the molecule and an explanation of the translational spectrometer, which we used for investigation, the priciple of Stark induced dissociation will be explained. I will then show kinetic energy release (KER) spectra and momentum vector correlation maps (Dalitz-plots) of the 3-particle-dissociation of triatomic deuterium, which is an isotopomer of triatomic hydrogen. The KER spectra approve the predictions made by perturbation theory on Stark induced dissociation and the experimentally found Dalitzplotscan be compared to latest theoretical predictions