



# EINLADUNG zum IFP-SEMINAR

Thema: **Fundamental Physics and Quantum Engineering at Ultralow Temperatures**

Vortragende: **Christian Enss**  
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Host: Silke Bühler-Paschen

Termin: **Dienstag, 06. Mai 2014, 14:00 Uhr**

Ort: TU Wien, Institut für Festkörperphysik  
**Freihaus Seminarraum 138C, Turm B, 9. OG (gelbe Leitfarbe)**  
Wiedner Hauptstraße 8-10, 1040 Wien

## Abstract:

Low temperatures provide a unique environment for measurements at extremely low noise levels and to study systems with low energy excitations. In recent years the frontier of exploring atomic tunneling systems in amorphous materials has been pushed to a new level. Today it is possible to study the microscopic nature of such systems by the influence of their nuclear moments on the tunneling motion. At the same time new technological developments allow to construct novel cryogenic detectors with unmatched resolution for single particles that will enable new types of experiments that reach out for the neutrino mass and many other fundamentally important aspects of physics.