



Institut für Theoretische und Angewandte Physik  
(künftig Institut für Funktionelle Materie und Quantentechnologien)  
Universität Stuttgart

## Seminar zur Physik der kondensierten Materie

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**Daniel Förster**

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hält

**am Dienstag, den 29. Oktober 2013, 15:30 Uhr  
im Seminarraum 6.331, Pfaffenwaldring 57**

einen Vortrag mit dem Titel

### **Validation of the Software Package IMD for Molecular Dynamics Simulations of Laser Induced Ablation for Micro Propulsion**

A new concept of micro propulsion based upon laser ablation was introduced by the Institute of Technical Physics of DLR Stuttgart. Pulsed lasers are used for material removal of a target. The amount of removed material should be tuneable due to the tuneability of input laser energy and repetition rate, resulting in well defined impulse bits and low small thrusts down to the sub- $\mu\text{N}$  scale.

In this talk, the program IMD of the Institute of Theoretical and Applied Physics is discussed with respect to the simulation of ablation and its usability for this specific space application. Results of executed simulations are compared with those of a hydrodynamic simulation program (VLL) and experimental data.

Gastgeber: Dr. Johannes Roth, Tel. 685-65258