



TECHNISCHE UNIVERSITÄT
CHEMNITZ

Institut für Physik Physikalisches Kolloquium



Mittwoch, 10.05.2017, um 16:00 Uhr

Ort: Reichenhainer Str. 90;
Zentrales Hörsaal- und Seminargebäude,
Raum 2/N013

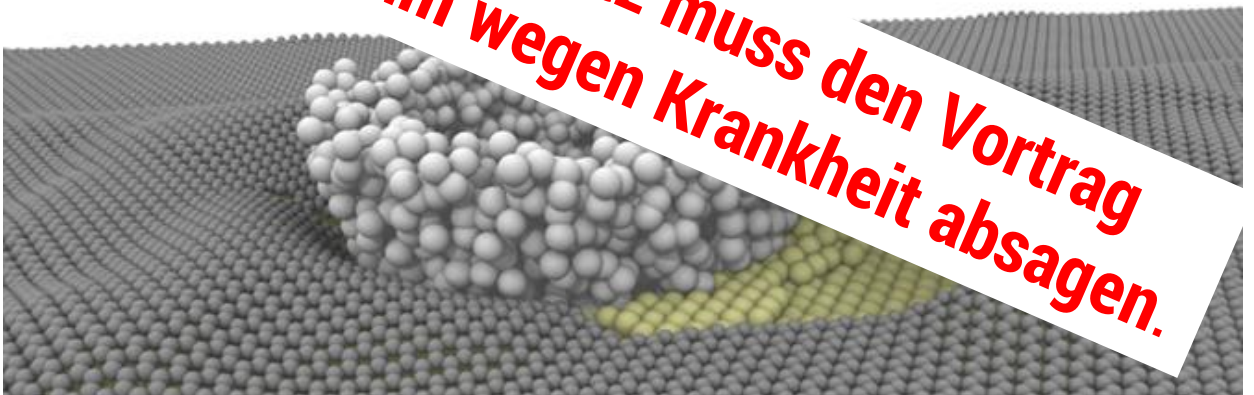
Prof. Dr. Roland Bennewitz

Abteilung: Nanotribologie
INM Leibniz Institute for New Materials

Molecular mechanisms in lubrication

The reduction of friction and wear is a technological challenge of greatest importance. Scanning force microscopy has become an important tool in the scientific investigation of mechanisms underlying friction, wear, and lubrication. Structure and relevant forces are resolved at the nanoscale. In this presentation, we will discuss examples for solid and liquid lubrication, by means of electrostatic interactions. Graphene is an outstanding lubricant at the nanometer scale and exhibits a unique structure in scratching. Ionic liquids exhibit a strong molecular layering with respect to the surface. Lubrication by ionic liquids can be controlled by means of electrostatic interactions.

Prof. Dr. R. Bennewitz muss den Vortrag zum Kolloquium wegen Krankheit absagen.



Mechanical protection of a Pt(111) surface by graphene
(from A. Klemenz et al., Nanoletters 2014, 14, 7145)

Alle Zuhörer sind ab 15:45 zu Kaffee und Tee vor dem Hörsaal eingeladen.

Informationen zum Vortrag erteilt:
Prof. Dr. Thomas Seyller, Tel.: 0371 531-32898



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