



## Einladung zum Vortrag

### “Functions of Molecular Soft Interfaces in Biology and Technology - Structural Characterization and Modeling”

**Emanuel Schneck**

Biomaterials Department,  
Max Planck Institute of Colloids and Interfaces, Potsdam

**Termin:** Donnerstag, 16.05.2019, 14:00 Uhr

**Ort:** Lise-Meitner-Hörsaal  
9. Boltzmannngasse 5, 1. Stock

#### Abstract:

Soft interfaces constituted by molecular assemblies in two dimensions play key roles in numerous technological applications and are major components of all biological matter, for example in the form of biomembranes. Detailed insight into the physical properties of such interfaces on the molecular and atomic length scales is often prerequisite to understand their functions. We utilize a variety of x-ray and neutron scattering techniques for the high-resolution structural characterization of single and interacting soft interfaces of biological and biotechnological relevance. Together with complementary techniques, including atomistic molecular dynamics simulations, we obtain unique insights and identify new aspects of their functions. Examples include bacterial outer surfaces, polymer brushes for shear lubrication and biocompatible functionalization, and the rich phenomenology exhibited by uncharged glycolipids in biomembrane surfaces, among others.

**Im Rahmen des Vortrages findet eine Lehrprobe zum Thema  
„Brownian Motion: Theory and Experiment“ statt.**