



Polymers under Multiple Constraints

Kolloquium

Thursday,

11th June 2015

at: 5.00 pm

Hörsaal für
Theoretische
Physik
Linnéstr. 5
04103 Leipzig

*Coffee will be
served from
4.30 pm!*

Prof. Dr. Bernd Stühn

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Multiscale dynamics in a complex liquid

The three component system of water, oil and surfactant forms a nanostructured liquid called a microemulsion. In a range of compositions it consists of spherical droplets of one phase, covered by a surfactant layer and embedded in the other phase. The dynamics of this liquid is mainly composed of the Brownian motion of droplets, the deformation modes of the soft surfactant layer and the molecular dynamics within the soft confinement. Specific effects arise in the dynamics as a result of the droplet-droplet interaction. In the talk an overview of these dynamic features will be given based on results from several complementary experimental methods like light scattering, dielectric spectroscopy and quasielastic neutron scattering. The models emerging from these results are based on the structural properties of the system and allow a detailed description of the dynamics.