# Mesoscopic Computational Methods for Complex Fluids (additional support for Europe)

Initiative: Modellierung und Simulation komplexer Systeme (beendet)

Ausschreibung: Biomoleküle-Zellen

Bewilligung: 10.12.2014

Laufzeit: 1 Jahre

In the project, the versatility of the lattice Boltzmann method will be exploited in order to study the dynamics of complex, heterogeneous and nano structured materials. The project combines the expertise of the German and the Dutch groups on polymeric materials and lipid membranes, and the numerical tools they have developed in the past to study the equilibrium and kinetics of polymer solutions and melts as well as membranes, with the knowledge of the Spanish group on coarse grained hydrodynamic modeling of complex fluids. The objective will be to propose a novel coarse grained model for charged mesostructured fluids where the reference thermodynamic behavior is consistently recovered and in which the dynamics of all their components is properly accounted for.

**Projektbeteiligte**

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