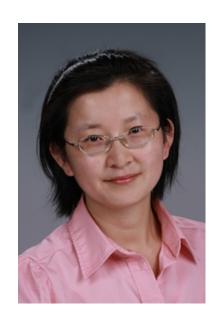
SEMINAR

Mesoscale Modeling of Complex Fluids

Monday, April 24, 2017 3:30 p.m. Room 8335

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Recent applications in micro-/nano-technology, material assembly and biological systems demand robust and accurate computational modeling of multiphysical processes at the mesoscale. This talk will focus on numerical methods and scientific computing that effectively capture mesoscopic multiphysics in complex fluids. Both top-down and bottom-up approaches will be discussed. In the top-down approach, the stochastic PDEs with consistent thermal scaling were solved to describe the important effects of thermal fluctuation in mesoscale. In the bottom-up approach, coarse-grained models were developed to conserve both equilibrium and dynamic properties of underlying microscopic systems.

Theoretical Chemistry Institute Seminar Series