

Seminar Notice

Speaker: Dr. Sutapa Roy, Max-Planck Institute for Intelligent Systems, Stuttgart, Germany

Date & time: Thursday, 20/09/2018, 3:00 pm

Venue: Sadhan Basu Hall

Title: Solvent coarsening around laser-heated colloids and related Casimir forces

Abstract: Presence of a laser-heated colloidal particle in a near-critical binary solvent leads to demixing and structure formation around it, which induces phoretic motion of a Janus colloid. In this talk, I will present results on the corresponding non-equilibrium process from mesoscopic theory and numerical simulations. Dependence of the demixing mechanism, as well as of the colloid motion, on the composition of the solvent and the surface adsorption property of the colloid will be discussed. I will also present results on the Casimir-like forces that get generated when the composition fluctuations are confined between two such suspended colloids.

All are cordially invited to attend the seminar