

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Observing the three-dimensional motion of colloids at an oil-water interface RYAN MCGORTY, DAVID KAZ, Harvard University, SHANKAR GHOSH, Tata Institute of Fundamental Research, V.N. MANOHARAN, Harvard University — Our experimental system allows us to place micron-sized colloids at a flat oil-water interface. Using digital holographic microscopy we track the motion of particles at the interface in all three dimensions. Of particular interest is the out-of-plane motion of an adsorbed particle. I will present data of such motion and what it reveals regarding the energy and length scales of a particle attached to an interface. Introducing a laser tweezer and customized colloids (such as core-shell particles) into our experiment allows us to further investigate this system.

Ryan McGorty
Harvard University, Physics Department

Date submitted: 21 Nov 2008

Electronic form version 1.4