

**CENTER FOR FLUID MECHANICS
AND
THE FLUIDS, THERMAL AND CHEMICAL PROCESSES GROUP
OF
THE DIVISION OF ENGINEERING
SEMINAR SERIES**

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Dynamics and Stability of Reconfigurable Capillary Surfaces

‘Capillary surfaces’ are liquid/gas interfaces whose shape is determined by surface tension. Capillary surfaces reconfigure passively by their tendency to minimize area. They can also be made to reconfigure actively by doing work on them. In both cases, the nature of the underlying flow (viscous or inviscid) and the boundary constraints, such as pinned or moving contact-lines, are important to reconfiguration dynamics. In this talk, we will present results on the dynamics and stability of drops and systems of drops. Motivating applications include i) the beetle-inspired switchable capillary-adhesion device and ii) mechanically-excited sessile drops.

**TUESDAY, APRIL 5, 2011
BARUS & HOLLEY, ROOM 190
3:00pm**