



## **“Dynamics and stability of reconfigurable capillary surfaces”**

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### **ABSTRACT**

‘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 non-viscous) 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) a beetle-inspired switchable capillary-adhesion device and ii) the manipulation of sessile drops via mechanical-excitation.