TUFTS UNIVERSITY Physics and Astronomy Colloquium

"Dripping, jetting, drops and wetting: the magic of microfluidics"

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Harvard University

This talk will discuss the use of microfluidic devices to precisely control the flow and mixing of fluids to make drops, and will explore a variety of uses of these drops. These drops can be used to create new materials that are difficult to synthesize with any other method. These materials have great potential for encapsulation and release and for drug delivery. I will also show how the exquisite control afforded by the microfluidic devices provides enabling technology to use droplets as microreactors to perform biological reactions at remarkably high rates using very small quantities of fluids. I will demonstrate how this can be used for new fundamental and technological applications.

> 3:00 pm Friday, March 30, 2012 Robinson 253 Medford Campus

Refreshments served at 2:30 in The Knipp Library, Room 251