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City University of Hong Kong

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## City University Distinguished Lecture Series

Speaker

**Professor David Weitz**

*Mallinckrodt Professor of Physics and Applied Physics  
Director of the Materials Research Science and Engineering Center  
Harvard University*



# Dripping, jetting, drops and wetting: The magic of Microfluidics

on

Tuesday, 21 March 2017 at 4:30 pm

at

Connie Fan Multi-media Conference Room  
4/F Cheng Yick-chi Building  
City University of Hong Kong  
Tat Chee Avenue, Kowloon

### Abstract

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 exhibit fascinating physical properties and have great potential for practical uses. I will also show how the exquisite control afforded by microfluidic devices provides enabling technology to use droplets as microreactors to perform reactions at remarkably high rates using very small quantities of fluids. This allows them to be used to explore fundamental properties of systems biology, and to be used for new kinds of diagnostic instrumentation.

### Biography

Professor Weitz received his PhD in physics from Harvard University and then joined Exxon Research and Engineering Company, where he worked for nearly 18 years. He then became a professor of physics at the University of Pennsylvania and moved to Harvard at the end of the last millennium as professor of physics and applied physics. He leads a group studying soft matter science with a focus on materials science, biophysics and microfluidics. He is director of Harvard's Materials Research Science and Engineering Center, funded by the National Science Foundation. Several startup companies have come from his lab to commercialize research concepts. Professor Weitz is a member of the National Academy of Sciences, the National Academy of Engineering, and the American Academy of Arts and Sciences.

Online registration:

<http://www.cityu.edu.hk/vprt/cityu-dls/upcoming.htm>

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