

IAS Distinguished Lecture

A Few Spectacular Properties of Pearl Drops

Professor David Quéré

ESPCI & École polytechnique, Paris, France

Date : 8 December 2017 (Friday)

Time : 10:30am – 12:00nn

(Light refreshments will be served from 10:00am to 10:30am)

**Venue : Mr & Mrs Ho Chun Hung Lecture Theatre (LT-12), 4/F,
Yeung Kin Man Academic Building, City University of Hong Kong**



Abstract

Pearl drops are drops that remain spherical on solids, which deeply modifies their behaviors compared to usual situations. I will first describe the recipes to generate pearl drops, either by texturing the substrates, or by heating them, or by moving them. Then, I will show a few dynamical properties of these liquid pearls - and focus more particularly on water repellency, antifogging abilities, aerophilicity (all cases found in nature with plants or animals) and self-propulsion.

Biography

Shortly after getting his PhD degree in Paris, David Quéré was hired at the CNRS and he did his research at Collège de France, in the lab directed by Pierre-Gilles de Gennes (Nobel Prize laureate in Physics in 1991), before moving in 2006 at ESPCI-Paris. His research field is Soft Matter, with a strong interest in interfacial hydrodynamics (drops, films, morphogenesis, coating, biomimetics). The textbook he wrote entitled “Capillarity and Wetting Phenomena - Drops, Bubbles, Pearls, Waves” has been cited 3200 times since its publication in 2003. David Quéré also got in 1996 a joint position at École Polytechnique, where he is now a Professor, in both Departments of Physics and Mechanics. Apart from Polytechnique, he has been teaching at ESPCI, École Normale Supérieure (Paris), MIT (2006) and Tsinghua University, in Beijing (since 2013). He is a member of the editorial board of Soft Matter, Europhysics Letters (EPL), Physical Review Fluids and Scientific Reports.



All are welcome

Online registration: www.cityu.edu.hk/ias/event

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