

## IAS Distinguished Lecture

# Wetting - A Multiscale Phenomenon

**Professor Dr. Hans-Jürgen Butt**

Max Planck Institute for Polymer Research, Mainz, Germany



**Date : 15 May 2018 (Tuesday)**

**Time : 10:30am – 12:00nn** (*Light refreshments will be served from 10:00am to 10:30am*)

**Venue : Mr & Mrs David T F Chow Lecture Theatre (LT-4), Yellow Zone, 4/F,  
Yeung Kin Man Academic Building, City University of Hong Kong**

### Abstract

Wetting of solids by a liquid is a daily phenomenon. Examples are drops on glasses, windows in the rain or fogging of mirrors. Wetting determines many technical applications such as painting, printing, coating, or flotation. Still, such a simple phenomenon as a sliding drop on a surface is far from being quantitatively understood. One reason is that macroscopic wetting is determined by processes at very different length and time scales. In particular events at the contact line, where solid, liquid and air meet, influence drop movement. Several fundamental issues will be addressed: How can we control wetting? How do drops advance and recede on superhydrophobic surfaces? How is energy dissipated when drops slide over a surface? How do surface-active-substances influence moving drops? What is the difference between solid adhesion and the lateral adhesion of drops?

### Biography

Hans-Jürgen Butt was born 1961 in Hamburg. From 1980 to 1986 he studied physics in Hamburg and Göttingen. After his master thesis in high energy physics he moved to Frankfurt to work on his Ph.D. thesis in Ernst Bamberg's group at Max Planck Institute for Biophysics. He defended his thesis about light induced proton transport of bacteriorhodopsin in April 1989. Then he spent a year as a postdoc in Santa Barbara, California, with Paul Hansma. In 1990, back in Germany at the Max Planck Institute for Biophysics, he studied biological objects and surface forces with the atomic force microscope. He habilitated in 1995 in biophysical chemistry. In 1996 he went to the institute for physical chemistry at the Johannes Gutenberg-University in Mainz as a Associate Professor. In 2000 he joined the University of Siegen as a Full Professor for physical chemistry. 2002 he received a call from the Max Planck Institute for Polymer Research. Since then he leads the group for Experimental Physics of Interfaces as a director. The group does fundamental research on the structure and dynamics of soft matter interfaces. The aim is to describe processes at interfaces quantitatively. Hans-Jürgen Butt is married and has three children.



**Online registration: [www.cityu.edu.hk/ias/event](http://www.cityu.edu.hk/ias/event)**

**All are welcome**

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