上海交通大学 SHANGHAI JIAO TONG UNIVERSITY

船舶海洋与建筑工程学院 School of Naval Architecture, Ocean & Civil Engineering

香港科技大学李志刚教授学术报告

报告题目： Recent Progress in Nanofluidics: Opportunities and Challenges

时　　间： **2019 年 8 月 12 日（星期一），下午 15:00**

地　　点： 上海交大闵行校区木兰船建大楼 **B 801** 会议室

报 告 人： 李志刚教授，Professor in the Department of Mechanical and Aerospace Engineering at the Hong Kong University of Science and Technology (HKUST)

报告人介绍：

Dr. Li is currently a professor in the Department of Mechanical and Aerospace Engineering at the Hong Kong University of Science and Technology (HKUST). He received his B.S. from Harbin Engineering University in 1996, M.Eng. from Tsinghua University in 1999, and Ph.D. from the University of Delaware in 2005. Before moving to HKUST in 2007, he was a post-doctoral research associate in the Department of Chemical & Biomolecular Engineering at the Johns Hopkins University. He was a recipient of the Chinese Government Award for Outstanding Oversea Student in 2005. His research interest covers several areas, including nanoscale transport phenomena, interfacial science, nonlinear dynamics/chaos, and biosensors.

报告内容简介：

Molecular interactions play a dominant role at the nanoscale and make nanofluidics different from microscale and macroscale fluid mechanics. Nanocofinements, on the one hand, introduce new parameters, which affect fluid flows and make flow analysis at the nanoscale complex. On the other hand, these parameters also accommodate rich, new flow phenomena that may not be observed at the macro- and microscale. In this talk, the recent progress in nanofludics is reviewed. The role of fluid-surface molecular interactions and how they make nanoscale fluid flows special are elaborated. Specifically, some new phenomena caused by molecular interactions and the possible applications are summarized. Furthermore, the challenges faced by nanofluidics, which may hinder the applications of nanofluidics, are also discussed.

欢迎大家参加！

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