

北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Ultrafast Laser Spectroscopy of Two-Dimensional Materials and Their Heterostructures

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Time: 4:00pm, June 12, 2017 (Monday)

时间: 2017年6月12日 (周一) 下午16:00

Venue: w563, Physics building, Peking University

地点:北京大学物理楼,西563会议室

Abstract

Starting with the discovery of graphene in 2004, the interest in two-dimensional (2D) materials has been exponentially growing. Across many disciplines, their exceptional electrical, chemical, thermal, and optical properties have drawn considerable attention that created an entire field within a decade of their discovery. Ultrafast lasers are powerful tools to control and probe transient processes in 2D materials and study their optical properties. This seminar focuses on recent studies of 2D materials using ultrafast laser spectroscopy. Transient absorption microscopic measurements on photocarrier dynamics in 2D materials will be discussed, with an emphasis on interlayer charge and exciton transfer in van der Waals multilayer structures formed by various 2D materials.

About the Speaker

Professor Hui Zhao received his PhD degree from Beijing Jiaotong University in 2000. After postdoc trainings at Karlsruhe Institute of Technology (Germany) and University of Iowa (USA), he joined University of Kansas in 2007. He received an NSF CAREER Award in 2010 and was promoted to Full Professor in 2017. His research interests include semiconductor physics, ultrafast laser spectroscopy, nanomaterials, and spintronics. Since 2010, his group has mostly focused on ultrafast laser spectroscopy of two-dimensional materials. He has more than 100 publications with more than 2600 citations and an H-index of 32. He serves as a reviewer for more than 40 journals, including Nature and its sister journals.

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