北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Weekly Seminar

Strong Field THz Technology

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Shanghai Institute of Applied Physics

Time: 4:00pm, March. 26, 2014 (Wednesday)

时间：2014年3月26日 （周三）下午4:00

Venue: Room 607, Conference Room A , Science Building 5

地点：理科五号楼607会议室

Abstract

As one of the most attractive subjects in recently years, THz technology finds broad applications in bio-medical imaging, nano-material diagnostics, molecular spectroscopy, airport security and food safety etc. The talk would introduce the THz fundamentals and properties, then mainly discuss about the experiment to generate the strong field THz radiation through optical rectification and the method to measure the THz pulse energy and temporal waveform. Finally a few frontier THz applications e.g. THz streaking to characterize the ultra-fast X-ray pulse duration and longitudinal profiles, THz manipulation of the material phase-transition and super-conductivity and THz amplification scheme through accelerator based light source are also briefly addressed.

About the Speaker

Bin Li received his Bachelor degree from Beijing University in 1999, and his PhD degree from the University of Pittsburgh, Pennsylvania, USA in 2006. He was a post-doctoral researcher at the University of Colorado, USA (2007-2008) and Rutherford Appleton Laboratory (Science Technology Facilities Council), UK (2008-2010) respectively. From 2010 to 2013, he worked at European X-ray Free Electron Laser GmbH and DESY as the Scientist for ultra-fast X-ray Photon science and technology. At DESY (Center for Free Electron Laser Sciences), he developed the atto-second science beam-line and apparatus to investigate of the ultra-fast electron spectroscopy and dynamics. His research interests include ultra-fast & high-power laser technology, electron/optics/X-ray Spectroscopy, free electron laser sciences, and atto-second science and instrumentation etc. Most recently, he joined the faculty of Shanghai Institute of Applied Physics, and contributed to the project of construction and commissioning of the first X-ray laser facility in China, Shanghai X-ray Free Electron Laser (SXFEL).