

凝聚态物理前沿论坛第四十四讲

报告题目: **Imaging ultrafast dynamics on the nanoscale with terahertz scanning tunneling microscopy**

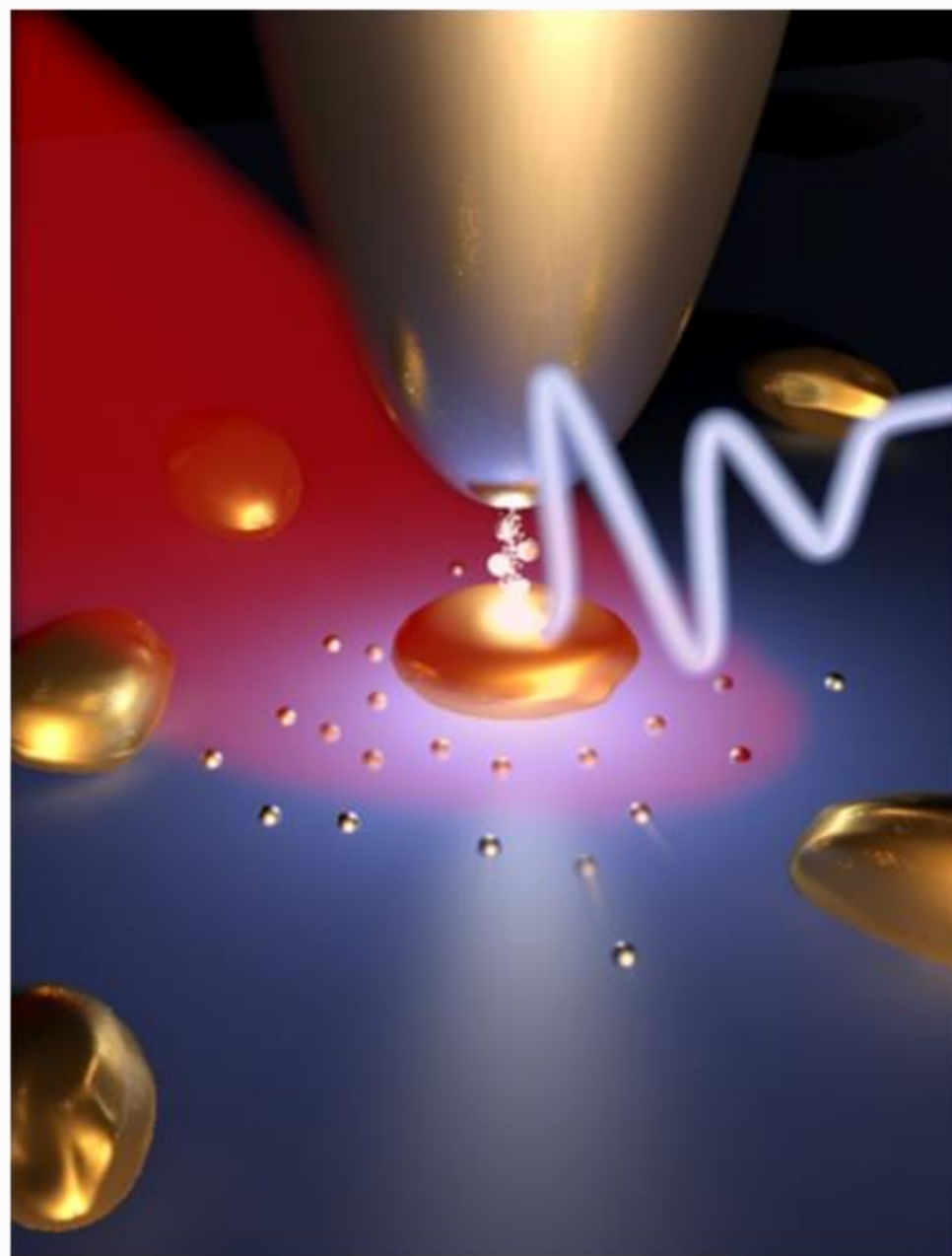
报告人: **Frank Hegmann 教授 阿尔伯塔大学**

报告时间: **2016年11月15日 (星期二) 上午09:30**

报告地点: **固体所新楼520报告厅**

报告内容简介:

The ability to directly probe ultrafast phenomena on the nanoscale is essential to our understanding of excitation dynamics on surfaces and in nanomaterials. Recently, a new ultrafast STM technique that couples terahertz (THz) pulses to the scanning probe tip of an STM was demonstrated (THz-STM), providing simultaneous 0.5 ps time resolution and 2 nm spatial resolution under ambient laboratory conditions. This talk will discuss how THz-STM works and its potential for probing sub-picosecond dynamics on surfaces with atomic resolution.



报告人简介:

Frank Hegmann received his PhD in Physics from McMaster University in 1994 and then worked as a postdoctoral researcher at the Center for Terahertz Science and Technology at the University of California, Santa Barbara. In 1997, he started as an assistant professor in the Department of Physics at the University of Alberta studying ultrafast dynamics in materials using time-resolved terahertz (THz) pulse spectroscopy. He is currently a Professor in Physics and AITF Strategic Chair in Terahertz Science and Technology with research interests in THz pulse spectroscopy, ultrafast imaging, THz-STM, terahertz nonlinear dynamics, and biological effects of intense THz pulses.