



复旦大学物理系 物质科学报告

Time: 2:00pm, Tuesday, 2019.9.10

Location: Room C108, Jiangwan Physics Building

报告题目: 超快激光技术进展及带来的变革性应用

Title: Recent Progresses on Ultrafast Laser Technology and Revolutionary Applications

Zhiyi Wei

Institute of Physics, Chinese Academy of Sciences

Abstract: Ultrafast laser has been recognized as one of the most promised field in laser science, it has not only broken many new world record in optical technology, but also made the remarkable progresses in frontier applications and interdisciplinary researches. Up to now, the shortest pulse of less than 50 as was generated in XUV -X-ray wavelength, ultra-intense laser with peak power up to 10 PW was reported based on the technology chirped pulse amplification (CPA), the most stable frequency comb was realized by locking the Carrier Envelope Phase Offset (CEO) of femtosecond laser, which not only supplied the innovative platform for sciences of information, physics, astronomy, biology and chemistry, but also revolutionary technology for the fields of precision manufacture, medical treatment, weather control and fine measurement etc, results in 3 Nobel prizes in chemistry and physics. In this talk, I will introduce the recent development on ultrafast intense laser and new progresses in my group. The further development and potential applications will be also prospected.



魏志义, 1991年中科院西安光机所博士毕业, 1991年-1997年中山大学博士后、副研究员, 1997年迄今在中科院物理所工作。曾先后在英国卢瑟福实验室、香港中文大学与科技大学、荷兰格罗宁根大学、日本电子综合技术研究所等地访问工作。长期致力于超短脉冲激光技术与应用研究, 取得多项有重要影响的突破性进展, 在Nature Photonics, Phys Rev Lett, Opt Lett等SCI杂志上发表论文300余篇, 国际会议邀请报告70余次, 多次担任国际重要会议主席。作为第一完成人获国家技术发明奖二等奖

1项、省部级科技奖3项。2001年获中国科学院青年科学家奖, 2002年获国家杰出青年基金, 2011获胡刚复物理奖。主持了国家重大基础研究项目(973)、国家重大科学仪器设备开发专项项目、科技部科技支撑条件项目、基金委重点、重大及国际合作等重要项目。已培养毕业博士研究生40余名。先后任国际纯粹与应用物理联合会(IUPAP)委员、马普阿秒科学中心(MPC-AS)成员、亚洲强激光委员会委员(ACUIL)。2017年当选美国光学学会会士。