



Weekly Seminar

Highly Efficient Energy Transfer in Light-Harvesting Complex

Jianlan Wu

Physics Department, Zhejiang University

Time: 4:00pm, 27 May, 2015 (Wednesday)

时间: 2015年05月27日 (周三) 下午4:00

Venue: Room W563, Physics Building, Peking University

地点: 北京大学物理楼 西563

Abstract

The energy transfer process in the early step of photosynthesis is highly efficient. 1) Under quantum dynamic framework, we determine the optimal energy transfer induced by environmental fluctuations. The trapping-free subspace is proposed for the noise-enhanced energy transfer. 2) The high-order corrections in the quantum kinetic expansion (QKE) provide a detailed exploration of non-trivial quantum effects (multi-site coherence) revealed by flux analysis. 3) The cluster-based generalized QKE (GQKE) method is developed to study multi-scale quantum dynamics of the energy transfer.

About the Speaker

吴建澜, 于1999年获得中国科学技术大学化学物理系学士, 于2004年获得美国MIT化学系博士, 其后在MIT从事博士后研究, 于2010年起任职浙江大学物理系特聘研究员。主要研究方向是捕光蛋白复合物中的激发态能量转移。