



北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Weekly Seminar

Exotic Polarons in Ultracold Fermi Gases

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University of Science and Technology of China

Time: 4:00pm, December 9, 2015 (Wednesday)

时间: 2015年12月9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会议室

Abstract

In this talk, I will discuss polaron excitations in ultracold atomic gases of fermions. Defined as collective excitations induced by an impurity, polaron is a typical quasiparticle that has stimulated much interest in the study of solid-state and cold-atom systems with highly polarized components. In cold atomic systems with highly controllable environment, new types of polarons may be prepared. I will focus on two scenarios, in which exotic polaron excitations may emerge under specifically designed backgrounds and interactions. I will also discuss possible experimental detection of these polarons.

About the speaker

易为, 2000年本科毕业于中国科学技术大学应用物理系, 2007年在美国密歇根大学物理系获物理学博士学位。2007年至2010年在奥地利因斯布鲁克大学从事博士后研究。于2010年回到中国科学技术大学光学与光学工程系, 任教授, 博士生导师。主要从事基于超冷原子气体和其它相关物理体系量子模拟方面的理论研究。