



清华大学高等研究院

Institute for Advanced Study, Tsinghua University

Informal Lecture

Title: Orbital Feshbach Resonance: the background, birth and future

Speaker: Hui Zhai
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Time: 2:00pm, Friday, Sep 25, 2015

Venue: Conference Hall 104, Science Building, Tsinghua University

Abstract

Very recently, two experiments from Munich group (arXiv: 1509.04257) and Florence group (arXiv: 1509.04256) confirm our predication of a new type of Feshbach resonance --- what we named as " Orbital Feshbach Resonance " (arXiv: 1504.02864, Phys. Rev. Lett. 115, 135301, 2015) --- in alkali-earth-like Ytterbium atomic gases. This is a breakthrough in the physics of ultracold two-electron atomic gases, and opens up many opportunities for new few- and many-body physics with quantum gases of this class of atoms. In this informal lecture, I will give a detailed introduction about the background, our proposal and experimental results, as well as future perspectives of the Orbital Feshbach Resonance.