

Joint CQSE and CASTS Seminar

2019
Mar. 22, Friday

TIME Mar. 22, 2019, 14:30 ~ 15:30
TITLE Advanced molecular fingerprinting with laser frequency combs
SPEAKER Dr. Pei-Ling Luo
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PLACE Rm716, CCMS & New Physics Building, NTU

Abstract

Direct comb spectroscopy (DCS), a technique that utilizes a well-stabilized pulse train to study the spectral properties of atomic or molecular systems, opens a new era of spectroscopic measurements. DCS has been a topic of growing interest not only for studying atomic/molecular precision spectroscopy but also for applications in environmental and biomedical sciences. In this talk, I will present a novel DCS technique: Dual-comb spectroscopy, a multi-heterodyne Fourier transform spectroscopy based on two frequency combs at slightly different repetition frequencies, enables the simultaneous achievement of broadband, high-resolution, and rapid spectral measurement for molecular fingerprinting.

