ICFO LECTURES | Ultrafast Measurement: What, why and how

ALLAN JOHNSON

October 27, 2022 to November 03, 2022
11:00 to 13:00
Blue Lecture Room and Online (Teams)

This course will provide an overview on ultrafast measurement, covering why we do them, what information we can extract from them and how they are actually done. A survey approach will be taken to give an overview of the field and give a sense of how ultrafast measurement may be helpful in different applications.

Ultrafast Measurement: A very "top level" view of ultrafast, with emphasis on its relationship to static measurement. When do you really need it, and what does it really tell you about physical systems?
Ultrafast probes: Ultrafast measurement can be combined with a range of probes: optical spectroscopy, diffraction, multi-dimensional spectroscopy, photoelectrons, etc. This lecture will give an overvi-ew of different ultrafast probes and what information they can extract.
Ultrafast sources: How do you actually make all the beams needed to do the techniques from Lecture 2? Covers mode-locked lasers, ultrafast X-ray sources, THz and ultrafast photoelectron sources.
Advanced topics: A more detailed dive into exotic stuff like light-induced phase transitions and light-induced superconductivity.

The lectures will be held in the **BLR** and will also be broadcasted online on **October 6, 13,** & **27** and **November 3** from **11:00** to **13:00.**

Participation is open to all ICFOnians
We strongly encourage you to attend the lectures in person. In case you are unable to attend in person, please, use the following link:

ICFO lectures are a series of introductory lectures covering topics on all main research area at ICFO, with an emphasis on topics relevant for experimental groups and/or not covered i other thematic lecture series
They will be held regularly on Thursdays in the BLR. Each series will include 4 lectures give

by ICFO group leaders and senior researchers from the different groups and external invite experts.

Hosted by: Academic Affairs