ICFO



INSIGHT SEMINAR | Advances in Broadband Saturation Spectroscopy: Towards Probing New Physics in the Mid-Infrared

OLIVER HECKL

April 09, 2026
12:00 to 13:00
Elements Room

Broadband precision spectroscopy of rovibrational transitions holds promise for tracking periodic variations in fundamental constants. Such variations may offer evidence supporting the existence of ultralight dark matter and indicate new physics. This talk provides an overview of our efforts in achieving broadband saturation spectroscopy in the mid-infrared. Our focus lies on crystalline super mirrors, featuring a cavity finesse surpassing 400,000, and low-noise high-power frequency combs generating Watt-level output power.

** If you require an accommodation to participate in this event due to a disability, please

contact the Events Team at events@icfo.eu as soon as possible.

Hosted by: Prof. Dr. Jens Biegert