ICFO

SEMINAR: Integrated Nonlinear Photonics for Classical and Quantum Applications

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February 07, 2025
11:00 to 12:00
Seminar Room

In the domain of terahertz communications and broadband terahertz spectroscopy, practical applications require the development of miniaturized devices that are high-speed, power-efficient, and sensitive. I will highlight latest innovations, present obstacles, and future possibilities concerning integrated nonlinear photonic devices for optical-terahertz applications.

The presentation will discuss opportunities enabled by integration and miniaturization, aligning with telecom and fiber technologies, to embed complex (sub-)terahertz photonics functionalities onto a single chip. Beyond the classical use cases of the integrated nonlinear photonic platform, I will also explore its capabilities for quantum networks, including on-chip frequency conversion, modulation, and other nonlinear functions.

Hosted by: Prof. Dr. Adrian Bachtold and Prof. Dr. Frank Koppens