

# 2023



## Nanophotonics & nano-optics

(Last update: July 8<sup>th</sup>, 2022)

### Description

The « nanophotonics and nano-optics » session will cover recent developments in the field of the interaction of light with nano-objects, nanophotonic devices or nanomaterials

The session will particularly focus on:

- Plasmonics: surface plasmons, ultra-fast plasmonic, plasmonic nanostructures for tight field confinement and field enhancement,
- Dielectric metasurfaces, 2D arrays of nanostructures, topological photonic metamaterials
- Electromagnetic modeling, artificial intelligence and deep learning applied to nanophotonic inverse design and optimization
- Nanophotonic-enabled devices and applications: nanoantenna, nanostructures and metamaterial-based techniques, dynamically tunable nanophotonic systems, active and non linear nanophotonics, nano-optomechanical systems.
- Advanced fabrication and optical characterization/imaging techniques for nanophotonic structures

### Keywords

Plasmonics; nanomaterials for optics; quantum nano-optics; opto-mechanics; nanophotonic devices

### Scientific committee

**Anne-Ségolène CALLARD\*** (EC Lyon – INL, Lyon)

**Yannick DE WILDE** (CNRS – I. Langevin, Paris)

**Erik DUJARDIN\*** (CNRS – ICB, Dijon)

**Jean-Luc DUVAIL** (Nantes Univ. – IMN, Nantes)

**Anne-Laure FEHREMBACH** (AMU – Institut Fresnel, Marseille)

**Antoine MONMAYRANT** (CNRS – LAAS, Toulouse)

\* *Session Coordinator*