

# International Thematic School on OPTOMECHANIQUE & NANOPHONONIQUE

Ecole thématique du CNRS



**April 17-28, 2023**

Les Houches Physics School, Chamonix Mont Blanc Valley, France

The **photon-phonon interaction** is a field of physics that has been expanding rapidly for almost 25 years. Initially this field emerged to answer fundamental questions about quantum measurements and to extend these principles to macroscopic objects. These questions are still relevant today, but are also the basis for new studies in many teams in Europe and abroad. Thus, these questions feed many fundamental and technological challenges.

Our school proposal aims at giving a global view of this interdisciplinary field by treating, among others, quantum concepts and effects in optomechanics, electro-optomechanical sensors (fundamental effects and applications), particle or atom levitation, as well as many other potential applications (metrology, ultra-sensitive detection ...)

**6 outstanding lecturers will cover a broad spectrum going from the theory of Photon-phonon interaction and their characterization to the most advanced Photon-phonon interaction devices :**

**Yiwen Chu** (ETH Zurich – CH), **Andrea Nunnenkamp** (UNIVIE – AT), **Samuel Raetz** (Univ Le Mans – FR), **Paulo Santos** (Paul Drude Institute - Berlin – GE), **Birgit Stiller** (MPL – GE), **Ewold Verhagen** (AMOLF – NL).

**Attending a thematic school is a unique opportunity to learn, share and connect with top leaders in the field. The school is designed for students and researchers using optical methods and for physicists participating in their development.**

**Application deadline (short motivation letter + CV): November 22, 2023**

[www.sfoptique.fr](http://www.sfoptique.fr)

<https://www.sfoptique.org/pages/sfo/ecoles-thematiques/2023-optomecanique-nanophononique/>