

## ENS-LKB Optomechanics and Quantum Measurements

Wed, 2016-09-28 15:08 - [Antoine Heidmann](#) [1] **Website:**  
[www.lkb.science/optomechanics/](http://www.lkb.science/optomechanics/) [2]

**Research Type:** Experiment

We study the interaction mediated by radiation pressure between light and mechanical resonators. Our goals include overcoming quantum limits in high-precision interferometric measurements (such as gravitational-wave interferometers) or realizing quantum-coherent hybrid transducers based on nano-optomechanical devices.

Expertise:

- Quantum limits in high-precision measurements
- Quantum optomechanics with macroscopic mechanical resonators
- Hybrid optomechanical transducers using photonic crystal nanomembranes
- Participation to the Virgo Collaboration for radiation pressure effects and quantum noises
- Low-vibration cryogenics
- Low-noise RF measurements

**Leader:** Antoine Heidmann

### Location

Laboratoire Kastler Brossel, Université P. et M. Curie 4 place Jussieu, Case 74  
Paris 75005 France  
Phone: +331 4427 4389  
48° 50' 36.5676" N, 2° 21' 6.6024" E

- [Quantum Communication](#) [3]
- [Quantum Metrology, Sensing and Imaging](#) [4]

**Source URL:** <http://qurope.eu/db/groups/ens-lkb-optomechanics-and-quantum-measurements>

### Links:

[1] <http://qurope.eu/users/antoine-heidmann>

[2] <http://www.lkb.science/optomechanics/>

[3] <http://qurope.eu/category/vi/quantum-communication>

[4] <http://qurope.eu/category/virtual-institute/quantum-metrology-sensing-and-imaging>