

# The EUPHONON European Project celebrates the Nanophononics Day

*The Nanophononics Day, collocated with the European Materials Research Society Spring Meeting (Lille, 26-30 May), aims to raise awareness about this emergent research area and the EUPHONON Project. ICREA Prof Dr **Clivia Sotomayor**, Group Leader at ICN2, coordinates this initiative.*

**Bellaterra, Monday May 26<sup>th</sup> 2014.** A phonon is a collective excitation of atoms or molecules, a vibration of matter which plays a major role in physical properties of solids and liquids. Nanophononics is the science and engineering of these vibrations at the nanometre scale. Applications of the knowledge generated in the field might include novel devices aiming to decrease the power consumption for a low-power information society. It also includes phonon lasers and phenomena involving ultra-fast acoustic processes, or exceeding the limits of mass and pressure detections in membranes which might have an impact in safety and technology standards. Nanophononics links classical and quantum physics and translates this knowledge into everyday applications.

The [EUPHONON](#) project aims to amalgamate the activities on phonon science and technology in Europe to establish a strong community in this emerging research field. It started in November 2013, coordinated by Prof. **Sebastian Volz** from CNRS – École Central Paris. ICREA Prof Dr **Clivia M Sotomayor Torres**, *Phononic and Photonic Nanostructures* (P2N) Group Leader at the Institut Català de Nanociència i Nanotecnologia (ICN2), is among the 7 members of the consortium. She is the coordinator of the Nanophononics Day, intended to raise awareness about this emergent research area and the EUPHONON Project.

The Nanophononics Day is celebrated in May 26<sup>th</sup> 2014, collocated with Symposium D of the European Materials Research Society (E-MRS) Spring [Meeting](#) 2014 in Lille, entitled “*Phonons and Fluctuation in Low Dimensional Structures*” and with ICREA Prof Dr **Clivia M Sotomayor Torres** again among its organizers. It is probably the largest nanophononic event in Europe and a perfect context for a lively discussion about the most recent theoretical and experimental findings.

The Nanophononics Day includes conferences by leading scientists about recent breakthroughs in nano-scale thermal transport and how the recent achievements constitute solid base for nanophononics. Prof **Gang Chen** (MIT, USA) and Prof **Olivier Bourgeois** (CNRS Inst. Neel) will cover phonons in solid materials while phonons in biological matter will be addressed by Prof **Thomas Dehoux** (University of Bordeaux). Experimental methods using scanning probes will be illustrated by Prof **Oleg Kolosov** (Lancaster University) and Prof **Severine Gomez** (University of Lyon).

For further information:

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