



ICFO^B



EXCELENCIA
SEVERO
OCHOA
2016 - 2019

Fundació
Catalunya
La Pedrera

New Frontiers in Optical Trapping and Optical Manipulation



Symposium in honour of Prof. Dmitri Petrov

Barcelona, 7 July 2017

Generalitat
de Catalunya

Fundació Privada

CELLEX

Fundació Privada

MIR-PUIG



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH



UNIÓN EUROPEA
Fond Europeu de Desenvolupament Regional

BIST
Strategic Institute of
Science and Technology



8:30-9:00	Registration
9:15-9:30	Welcome
9.30-10:15	Trapping in a Material World Prof. Kishan Dholakia - University of St Andrews, Scotland
10:15-11:00	Combined optical and acoustic trapping Prof. Monika Ritsch-Martel. Medical University of Innsbruck, Austria
11:00-12:00	Coffee break & Poster Session
12:00-12:45	Light and Nano-Sound: Probing the Terahertz Acoustic Vibrations of Single Trapped Proteins and Nanoparticles Dr. Reuven Gordon. University of Victoria, Canada
12:45-13:30	Fictitious magnetic field gradients in optical microtraps as an experimental tool for interrogating and manipulating cold atoms Dr. Arno Rauschenbeutel. VCQ, Austria.
13:30-15:00	Lunch
15:00-15:30	Levitated Quantum Nanophotonics Prof. Lukas Novotny. ETH Zürich, Switzerland
15:30-16:00	Protein-DNA protein interactions studied at the single-molecule level using optical tweezers in combination with fluorescence microscopy Prof. Erwin J. G. Peterman, VU University Amsterdam, Netherlands
16:00-17:00	Coffee break & Poster Session
17:00-17:30	Photonic force microscopy and optical manipulation of functional nanoparticles Prof. Andrey Fedyanin. Lomonosov Moscow State University, Russia
17:30-18:00	Experimental study of critical Casimir forces Prof. Giovanni Volpe. University of Gothenburg, Sweden
18:00-18:45	Brownian Carnot Engine Prof. Juan M. R. Parrondo. Complutense University of Madrid, Spain
18:45-19:00	Concluding remarks