



UNIVERSITÀ
DEGLI STUDI
FIRENZE

“Playing with light at the nanoscale”

PROGRAMME

11:30: Colloquium

13:00: Lunch with the speaker (all participants are invited at LENS)

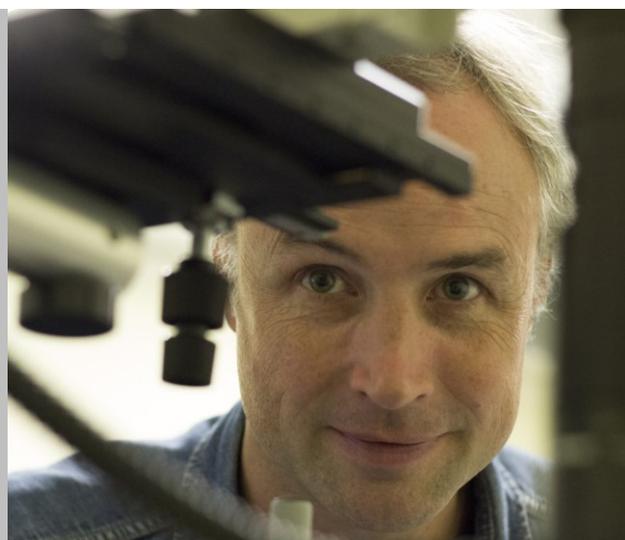
Enrico Fermi Colloquium



Friday 25th January
2019 11:30 a.m.

LENS - Via Nello Carrara
1 Sesto F.no (Firenze)

Conference room Querzoli



Prof. Roman Krahn

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ABSTRACT

Light interacts with matter in many different ways. It can be absorbed by semiconductor crystals and remitted at a different wavelength, or it can resonate with free electrons in metals and create plasmons. In my talk I will show my research activity on the optical properties of colloidal semiconductor nanocrystals, and how they can be employed for lighting and laser emission. One focus in this respect will be on the emerging lead halide perovskite materials. Then I will discuss plasmonic resonances in Metamaterials. Planar arrays of gold nanoresonators can be used as optical elements with ultrashort focal length and diverse functionality, and layered metal/insulator stacks can be tuned such that the effective dielectric permittivity goes towards zero - a regime in which they manifest peculiar optical properties.

Klein Colloquium by Sara Catalini: “Self-Assembling of Lysozyme: Microscopic and Macroscopic investigations”.

