

SUMMER INTERNSHIPS 2017

TITLE: Nanooptics of 2D materials

DESCRIPTION (Objectives, tasks, materials, equipment,...): Due to extraordinary properties of novel two-dimensional (2D) materials, (like e.g. graphene, thin semiconductor layers, etc.), they are considered as very promising candidates for their use in many exciting optoelectronic applications. However, the nanooptics of 2D materials is still essentially unexplored, where some basic concepts of the light-matter interaction should be studied and understood.

We invite talented and highly-motivated candidates (with a background in physics/mathematics/programing/engineering) to be absorbed in an interesting scientific research based on either experimental or theoretical study (or both) of the optical effects appearing in atomically-thick sheets. A close daily contact with experiments performed with the help of a state-of-the-art equipment will allow the candidate to touch the very frontiers of science.

SUPERVISOR: Alexey Nikitin

SHORT DESCRIPTION OF THE GROUP: The Nanooptics Group performs experimental and theoretical research in Nanooptics and Nanophotonics, covering both fundamental and applied aspects. Essentially, we develop near-field nanoscopy (scattering-type scanning near-field optical microscopy, s-SNOM) and infrared nanospectroscopy (Fourier transform infrared nanospectroscopy, nano-FTIR), and apply these novel analytical tools in different areas of science and technology.

TIMETABLE: 9:00-13:00, 15:00-17:00

COMMENTS: Internship duration from 1.5 to 2 months (to be discussed). Applicants should send an email to jm.pitarke@nanogune.eu including their academic record.
More info: <http://www.nanogune.eu/summer-internship>
Deadline for applications: 5 February 2017

SUITABLE FOR (chemists, physics, engineers, biologists,...): physics, engineers