ICFO-UNAM INTERNATIONAL SCHOOL ON THE FRONTIERS OF LIGHT: Photons in the NanoWorld

September 18, 2023 to September 22, 2023
CFATA. Queretaro, Mexico

ICFO-UNAM International Schools on the Frontiers of Light is a series of schools organized by ICFO Barcelona and CFATA-UNAM, the Centre for Applied Physics and Advanced Technology of the Universidad Nacional Autonoma de Mexico (MEXICO) with the aim to inspire the next generation of researchers in light sciences and related technologies.
The third edition will be devoted to NanoPhotonics and will be held in Queretaro, Mexico.
The school will feature experts from ICFO and UNAM in an **intensive 1-week course** directed to young students wishing to enter the vibrant field of NanoPhotonics.
Topics covered will include:

Molecular Nanophotonics
Photon Harvesting in Plants and Biomolecules
Single Molecule Biophotonics
Medical Optics
Biological applications of upconversion fluorescence nanomaterials
2D materials
Optical trapping and applications

Participants will gain a strong understanding of basic concepts, an introduction to the current state of the art in these topics and have the opportunity to mingle with top scientists from leading institutions.
SPIE@ICFO Chair Research Internships to conduct a project with an ICFO research group wil be offered to selected outstanding students attending the school.
Lecturers:

Prof. Niek van Hulst, ICFO
Prof. Nicoletta Liguori, ICFO
Prof. Maria Garcia-Parajo, ICFO
Dr. Clara Vilches, ICFO
Prof. Gonzalo Ramirez Garcia, UNAM
Dr. Andres de Luna, UNAM

Dr. Josue Mota Morales, UNAM
Prof. Eden Morales Narvaez, UNAM
Prof. Remy Fernand Avila Foucat, UNAM

Lectures and seminars will be broadcast online. The link to access the online lectures will be provided prior to the scheduled date.

Location:

The school will be locally organized by the Centro de Fisica Aplicada y Tecnologia Avanzada (CFATA), which is one of the 11 research units or schools of the Juriquilla Campus of UNAM. Juriquilla is a nice residential and academic suburb of Queretaro city, only 15 kms from down town. Queretaro city center is where the Mexican independence movement began. It is a beautiful colonial city, very lively, safe and pleasant to walk.

Participants will be hosted in hotels located in the city center. Back and forth daily transportation to Juriquilla will be arranged in buses provided by the school.

Questions regarding the venue, accommodation and local organization should be directed to icfo.unam.international.school@gmail.com.

Local Organization: Sandra Elizabeth Espinoza Macias, Nancy Retiz Vazquez.

School Fees:

Participants will be charged a small fee to help cover the costs of accommodation and catering, as follows:

Undergraduates: $1000 (Mexican pesos) / 50?
MSc : $3000 (Mexican pesos) / 150?
PhD and posdoc: $5000 (Mexican pesos) / 250?
Researchers: $3000 (mexican pesos) / 150? per day

Research Internships:

Up to two **SPIE@ICFO Chair Research Internships** to conduct a project with an ICFO research group will be offered to selected outstanding students attending the school.

Eligibility:

We welcome applications from individuals worldwide with a variety of backgrounds, including optics, physics, mathematics, electronics, engineering, chemistry and biology. Candidates must have an excellent academic record, and a strong commitment for scientific research.

Priority will be given to masters-level and advanced undergraduate students, although PhD students and young researchers are welcome to apply.

Persons with disabilities are strongly encouraged to apply. There are no restrictions of citizenship or gender.

How To Apply:

Applicants must submit:

A Curriculum Vitae, including contact details
Scanned copies of your complete (Bachelor and Master equivalent) University academic transcripts in English or Spanish
A one-page (max.) letter describing your background, research interests and motivation for attending the school.
Title & abstract for a proposed contributed talk or poster

Applications must be submitted online and all required application material must be complete in order to be considered.
The deadline for applications is 14 July.
For any questions, please contact us at frontiers@icfo.eu.
Note: If you are from a country with visa-obligations for Mexico, please be advised to already inquire (only inquire) regarding the documentation necessary (usually an invitation letter, plus travel and accommodation bookings) and the potential appointment-situation at the local Mexican Embassy/ visa-office.
Questions should be directed to icfo.unam.international.school@gmail.com.
About:
International Schools on the Frontiers of Light aim at giving talented young researchers and students worldwide a first introduction to a thematic research area and a taste of an international research environment. The schools incorporate a dynamic and social learning environment beyond participating in lectures, including e.g. group discussions, direct interactions with the lecturers, student talks and poster presentations.
International Frontiers Schools aim to be inclusive and welcoming, and adhere to ICFO's policy on Diversity in Conferences, Meetings and Workshops.
The organizers do not tolerate any type of conduct or behavior considered harassment or bullying and follow ICFO guidelines on Harassment & Bullying.
Participating Institutions

ICFO - the Institute of Photonic Sciences, is a young research institution that aims to advance the very limits of the science and technology of light, tackling important challenges faced by society at large in all areas of life, including health, energy, information, safety, security and caring for the environment. ICFO is a member of BIST, the Barcelona Institute of Science and Technology.
The National Autonomous University of Mexico (UNAM)?is one of the two largest universities in Latin America and it is often ranked as the best university in Iberoamerica. However its biggest merit might be making education with high standards available to students originated from all socio-economic backgrounds within the country.? UNAM is also home to

30 scientific research centers with an international scope. One of them -? the Centre for Applied Physics and Advanced Technology (CFATA) cultivates an interdisciplinary approach in which physics plays the central role, from which areas such as nanotechnology, materials science, biology and chemistry branch off.

Scientific Organizers: Dr. Remy Avila (UNAM), Dr. Robert Sewell (ICFO), Dr. Gonzalo Ramirez Garcia (UNAM)