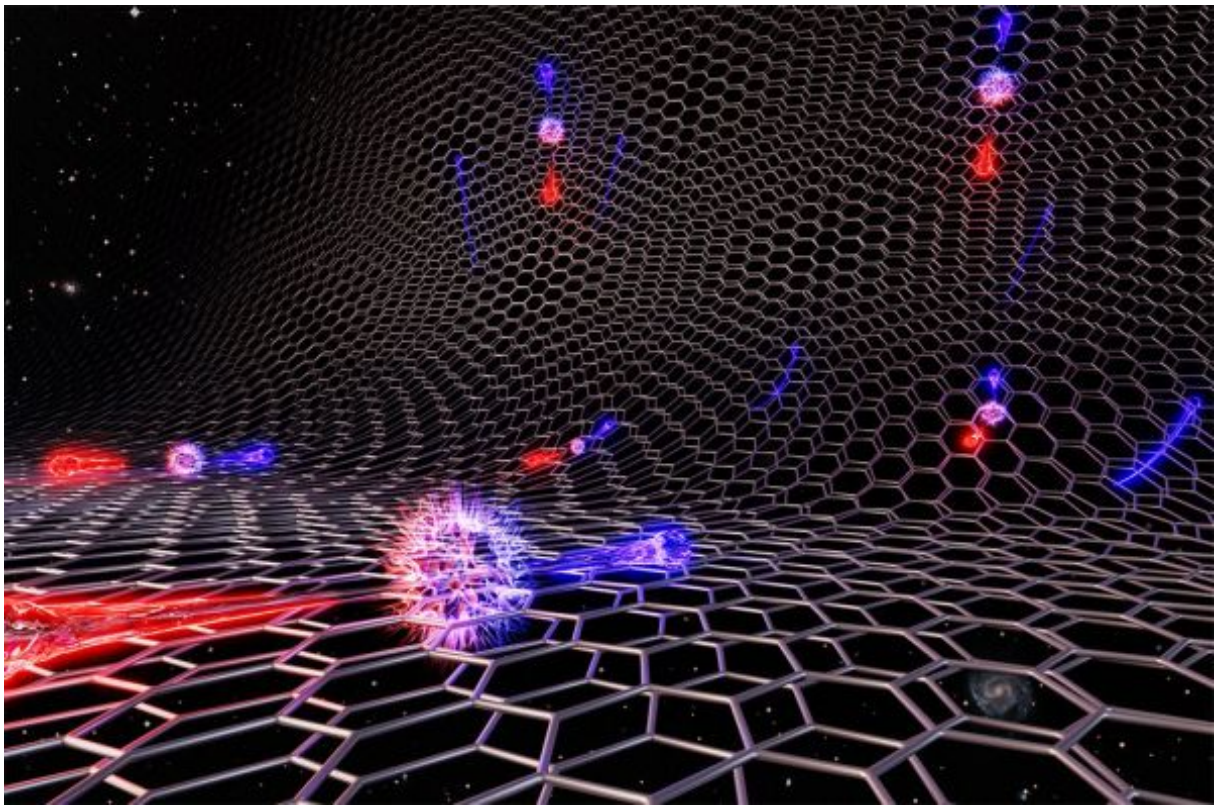
ICFO



ICFO INTERNATIONAL SCHOOL ON THE FRONTIERS OF LIGHT: New Horizons in Quantum Materials

Register now for school taking place June 27 - 30, 2022

May 03, 2022

Quantum materials have macroscopic properties that are governed by interacting particles, or by entanglement, or giving rise to collective excitations known as quasiparticles. This school aims to direct our vision into a new horizon of science and technology based on quantum materials, from advanced superconducting materials, to van der Waals materials, moire quantum matter, collective phenomena, strong light-matter interactions and more. The school will introduce advanced theoretical and experimental tools used to study quantum materials, and provide a glimpse of the wealth of potential applications, ranging from high-energy experimental and theoretical physics, to materials science and energy storage. This **4-day international school** will cover topics including: 2D Materials, van der Waal hetero-structures, twistronics, Near-field microscopy, STM, cavity QED materials engineering topology, and quantum batteries

The event will include lectures & seminars, discussion sessions, and student talks and poster where participants will have the opportunity to interact and present their own research
The school is open to registration from interested students and researchers worldwide
ICFO will offer up to 5 **SPIE@ICFO Chair Travel Fellowships** for selected students to atten the school.

? Two **SPIE@ICFO Chair Research Internships** to conduct a project with an ICFO researc group are also available on a competitive basis to outstanding students selected to atten the school.

? Lectures and seminars will be broadcast **online** and are open to registration from intereste students and researchers worldwide

REGISTRATION DEADLINE TO ATTEND IN PERSON: May 15th

Lecturers:?

Aharon Kapitulnik?(Stanford)?
Ali Yazdani?(Princeton)?
Amir Yacoby?(Harvard)?
Angel Rubio?(MPSD Hamburg & CCQ New York)?
Claudia Felser?(Max Planck-Gesellschaft)
Dimitri Basov?(Columbia)?
Eva Andrei?(Rutgers)??
Marco Polini?(University of Pisa)
Pablo Jarillo?(MIT)?
Paco Guinea?(IMDA Madrid)?
Prineha Narang?(Harvard)?
Tobias Stauber?(ICMM Madrid)

About:?

International Schools on the Frontiers of Light aim at giving talented young researchers an students worldwide a first introduction to a thematic research area and a taste of a international research environment. These schools incorporate a dynamic and social learnin environment beyond participating in lectures, including group discussions, direc interactions with the lecturers, student talks and poster presentations.

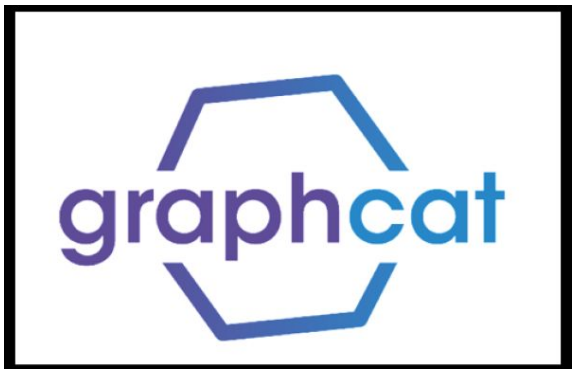
? ICFO do not tolerate any type of conduct or behavior considered harassment or bullying a d have clear defined policies against harassment.?

Scientific Organisers:

ICREA Professor Dr Frank Koppens (ICFO), Prof Dr Robert Sewell (ICFO) and Prof Dr Pablo

Jarillo-Herrero (MIT).?

**This activity is co-financed by the European Union Regional Development Fund within t e framework of the ERDF Operational Program of Catalonia 2014-2020 with the support of t e Department de Recerca i Universitat, with a grant of 50% of the total eligible cost (Graph AT 001-P-001702)



GraphCAT: the Graphene Community of Catalonia

Image not found