



# International Schools on the Frontiers of Light

Symposium on Emergent phenomena in Moire Materials  
moves to online format- (July 6- 17, 2020, ICFO)

May 26, 2020

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## TOPIC

**Moire systems** with 2D materials offer a novel platform for exploring a plethora of exotic phenomena. The emerging field of **twistronics** embodies a fundamentally new approach to engineering the electronic and optical properties of materials and devices. A tantalising example is the so-called **magic angle rotation** between sheets of graphene or semi-conducting 2D materials, which has shown superconducting phases similar to those of unconventional high-T<sub>c</sub> materials. The wide tunability of Moire systems offers many exciting new possibilities to explore.

## OVERVIEW

This year the school is organized in partnership with researchers from MIT.

**Due the evolving COVID-19 situation, for the first time the ICFO Schools on the Frontiers of Light will be held online with sessions spread out over 2 weeks, and they're are open to all interested attendees.**

The sessions gather leading experimentalists and theorists, and will cover the optics and electronics of twisted 2D materials: Twistronics, Correlated electron systems, Excitonics, Mott insulators, Polaritonics, Superconductivity, Magnetism, Topology, etc.

**ICFO 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. These schools incorporate a dynamic and social learning environment beyond participating in lectures.

The online event will include **seminars, round table discussions, hot topics sessions and poster session**, where students will have the opportunity to interact and present their current research.

The organizing faculty members are Dima Efetov, Frank Koppens, Adrian Bachtold, Maciej Lewenstein, Antoine Reserbat-Plantey, and Dr Robert Sewell and Pablo Jarillo-Herrero from MIT.

#### **Lecturers & Speakers:**

**Eva Andrei** (Rutgers)

**Leni Bascones** (ICMM Madrid)

**Dimitri Basov** (Columbia)

**Andrei Bernevig** (Princeton)

**Rafael Fernandes** (Minnesota)

**Paco Guinea** (IMDEA Madrid)

**James Hone** (Columbia)

**Atac Imamoglu** (ETH Zurich)

**Pablo Jarillo-Herrero** (MIT)

**Jeanie Lau** (Ohio State)

**Allan MacDonald** (Texas)

**Xavier Marie** (INSA Toulouse)

**Marco Polini** (IIT Pisa)

**Lucile Savary** (ENS Lyon)

**Jie Shan** (Cornell)

**Senthil Todadri** (MIT)

**Ashvin Vishwanath** (Harvard)

**Ali Yazdani** (Princeton)

**Eli Zeldov** (Weizmann)

## APPLICATION

To register for the online school click [HERE](#)

The registration will remain open until the end of the event, on **July17, 2020**

More information at [frontiers.icfo.eu](https://frontiers.icfo.eu)



Supporting institutions