

ICFO - U OF T - PTL-STANFORD INTERNATIONAL SCHOOL ON THE FRONTIERS OF LIGHT: Photons For Green Energy

October 25, 2021 to October 27, 2021
Online

Online, 25-27 October 2021
Toronto, Barcelona & San Francisco
Solar and thermal photons, emitted by the sun and other hot radiative bodies, respectively, can be captured and transformed into useful electricity via photovoltaic and thermophotovoltaic technologies. They can also be used to drive chemical reactions such as the transformation of CO2 into value-added hydrocarbons, thus offering a route towards carbon neutrality, or to store electricity into batteries.

This **3-day online school** will bring together leading experts and young researchers in the

fields of nanophotonics, catalysis, thermophotovoltaics, solar photovoltaics, hot electrons, and light-driven CO2 reduction, to cover the most recent advances in these areas, and address what is possible with next-generation energy technologies, based on our knowledge about light and its interaction with materials.

Online plenary sessions are open to all interested. Lectures and seminars will be broadcast online and are open to registration from interested students and researchers worldwide.

Lecturers:

Harry Atwater, Caltech
Mark Brongersma, Stanford University
Raffaella Buonsanti, EPFL
Pelayo Garcia de Arquer, ICFO
Prineha Narang, Harvard University
Geoffrey Ozin, University of Toronto
Georgia Papadakis, ICFO
Ted Sargent, University of Toronto

About:
International School 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.

The organizers do not tolerate any type of conduct or behaviour considered harassment or bullying and have a clear defined policy against harassment.

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.

Founded in 1827, the University of Toronto has evolved into Canada's leading institution o learning, discovery and knowledge creation. We are proud to be one of the world's to research-intensive universities, driven to invent and innovate. Our students have th opportunity to learn from and work with preeminent thought leaders through ou multidisciplinary network of teaching and research faculty, alumni and partners. The idea , innovations and actions of more than 560,000 graduates continue to have a positive impa t on the world.

The Photonics at Thermodynamic Limits Energy Frontier Research Center **(PTL-EFRC)** strives to achieve photonic operations at thermodynamic limits by controlling the flow of photons, electrons, and phonons in atomically-architected materials, and thereby enable entirely new energy conversion systems. The center involves an integrated, collaborative team of 12 faculty spanning 5 departments at Stanford, Berkeley, Caltech, Harvard, and UIUC. The PTL-EFRC is directed by Prof. J. A. Dionne and centered at its lead institution, Stanford University.