



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
SEMINAR

**Multi-physics Metaphotonics and
Nanophotonics with Low-Dimensional
Nanomaterials**

by

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Date: March 3, 2021 (Wednesday)

Time: 1:30 - 2:30 p.m.

Join ZOOM Meeting: <https://qrgo.page.link/YAvNn>



ALL INTERESTED ARE WELCOME

Abstract

Metaphotonics aim to manipulate the light-matter interaction via designing the artificial structures, while low-dimensional nanomaterials offer the natural material platform to mold the light. In this seminar, the state of art of multi-physics metaphotonics and nanophotonics developed from low-dimensional nanomaterials will be discussed. I will revisit Maxwell Equations, and provide the insight of generic principles, i.e. synthesizing and structuring, to guide the design of multiphysics metaphotonics. With that, I will show how to tailor the light transport and interaction at nanoscale via exploiting the physics of nonlinearity, non-locality, twistrionics, polaritonics, topological transitions in metasurfaces with low-dimensional nanomaterials. Some ongoing projects and outlook will also be discussed.