Invited Talk

Kin Hung FUNG

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Biography

Kin Hung FUNG received his BSc and PhD in Physics from The Hong Kong University of Science and Technology (HKUST) in 2002 and 2008 respectively. He worked as a Postdoctoral Research Associate at the University of Illinois (UIUC) from 2009 to 2010 and Massachusetts Institute of Technology (MIT) from 2011 to 2012. He joined the Department of Applied Physics at the Hong Kong Polytechnic University in 2012. He published over 60 peer-reviewed papers regarding nanophotonics, plasmonics, photonic crystals, magneto-optics, and topological photonics.

Non-Hermitian, Topological, and Lorentz Non-reciprocal Photonic Systems

Non-Hermitian, Topological, and Lorentz non-reciprocal photonic resonators have attracted intense attention due to their complexities which are strongly dependent on their spatial and temporal structures. Strongly dispersive materials such as plasmonic and gyromagnetic materials lead to additional difficulties in defining topological bands. In this talk, I will introduce recent progress in my group and discuss the bands and edge modes in these low-symmetry photonic systems. Arrays of plasmonic nanoparticles and gyromagnetic resonators will be used as examples to illustrate the topological and Lorentz non-reciprocal effects. The results are mostly contributed by Jin Wang, C.W. Ling, Raymond P. H. Wu, Wang Tat Yau, Wenyan Wang, K.F. Lee, K.H. Choi, Anshuman Kumar, and Yongliang Zhang

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