



University of Miami, Physics Department Colloquium

Date: Wednesday, Apr 23, 2025
Time: 4:00 pm – 5:00 pm
Location: Wilder Auditorium – Rm 112, Knight Physics Building

From Light to Nano-Light

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Abstract

Scanning near-field Nano-Optical imaging is an invaluable resource for exploring new physics of novel quantum materials. Surface plasmon polaritons and other forms of hybrid light-matter polaritons provide new opportunities for advancing this line of inquiry. In particular, nano-polaritonic images obtained with modern scanning nano-infrared tools grant us access into regions of the dispersion relations that extend beyond the reach of conventional far-field optics. In this colloquium, I will discuss this emerging direction, with examples from 2D layered materials and the interesting story from light to nano-light.

Biography

Dr. Ni received his Ph.D. degree in physics from National University of Singapore in 2013. He worked as a postdoctoral researcher at the University of California San Diego from 2014 to 2017 and postdoctoral research scientist at Columbia University from 2017 to 2019. Dr. Ni joined the faculty at Florida State University in 2020.