電子科学研究所学術講演会

講師： Prof. Zheyu Fang

(School of Physics, Peking University)

日時：平成 30 年 7 月 4 日(水)　9：40～10：40

場所：電子科学研究所　1 階　電子研会議室

タイトル: Plasmonic Hot Electrons Doping of 2D Materials

Abstract：

Plasmonics deals with the phenomena of collective vibration of electrons in the interface between metallic and dielectric media. With the advanced nanofabrication techniques, a broad variety of nanostructures can be designed and fabricated for plasmonic investigations at nanoscale. In this presentation, we will demonstrate our latest results of the design of new plasmonic nanostructures and the characterization of surface plasmon nanostructures with 2D materials by using Scanning Near-field Optical Microscopy (SNOM), which is one of the unique characterization tools for nano-optical detection, and other techniques, and discuss some fundamental properties for both localized surface plasmons and surface plasmon polaritons arise a new insight and understanding for the electro-optical devices, such as active plasmonic modulator and plasmonic detectors for energy harvesting.

Biography:

Zheyu Fang is a Professor in School of Physics, Peking University, China. He received his PhD in Physics from Peking University with Prof. Xing Zhu, and worked as Postdoc at Rice University with Prof. Naomi J Halas and Prof. Peter J Nordlander. He has published more than 100 peer reviewed papers with 5000 citations. He joined Peking University in 2012 and was selected as the National Top-notch Young Professionals in 2014. His current research interests are plasmonics, near-field optics, and nanophotonic materials and devices.

主催：北海道大学電子科学研究所学術交流委員会

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