RCAS Thursday Seminar 高原淳一 教授





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Plasmonic Waveguide and Thermal Radiation Control

Abstract

In this seminar I would like to talk about two topics for the recent progress of our study: plasmonics and thermal radiation control by microstructures.

For plasmonics, we will focus on nanoplasmonics, especially for plasmonic waveguide (PWG) towards nano-optical integrated circuits. PWG is a metal optical waveguide that utilizes surface plasmon polariton (SPP) propagating at a metal-dielectric interface. The optical beam radius of SPP around PWG can be shrunk to the nanometer order beyond the diffraction limit of light. We will review PWG and show recent experimental results about selective excitation of plasmonic mode by two incident beams.

For thermal radiation control, we will briefly

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introduce principles of thermal radiation control by micro-structured surface and discuss about application to THz emitters or high efficient incandescent lamps.

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Welcome Your Participation !!

