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Joint Colloquium

Anomalous localized resonances and spectral properties of Neumann-Poincare operators

Professor Hongyu Liu

Hong Kong Baptist University

Abstract

This talk is concerned with the mathematical study of plasmon materials and their applications in elasticity and optics. Plasmon materials are a type of metamaterial with artificially engineered negative material parameters. They have many potential applications including super-resolution imaging, invisibility cloaking and medical therapy. We are particularly interested in the anomalous localized resonance phenomena induced by plasmon materials. They are associated with the infinite dimensional kernels of non-elliptic PDOs. They are also closely related to the spectra of the Neumann-Poincare operators associated with the underlying PDEs, which are in general not compact even on smooth boundaries..

Date:	3 November 2017 (Friday)
Venue:	Rm. 219, Lady Shaw Building, The Chinese University of Hong Kong, Shatin
Time:	4:00 p.m. – 5:00 p.m.

All are Welcome!