

Seminar On

Recent Works on Microwave Imaging

By

Dr Kuiwen Xu

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Date : 21 August 2018 (Tuesday)

Time : 03:00 pm – 04:00 pm

Venue : Room 15-202, meeting room of State Key Laboratory of Millimeter Waves,
15/F, Lau Ming Wai Academic Building, City University of Hong Kong

Abstract

Microwave imaging is a kind of classic and ancient problem in electromagnetics, which has been studied for decades. However, there are still many challenges and opportunities for this topic. Safe, reliable, high-quality and low-cost imaging technologies are growing requirements for the modern world. In many imaging applications, the shapes, locations and composite materials of objects are reconstructed from the measurement of electromagnetic fields scattered by these objects. Such imaging modality is referred to as quantitative imaging, which is based on inverse scattering problems (ISPs). In this talk, the formulation of ISPs is casted and our lately contributions in computational methods for ISPs are discussed, with special emphases on the two major difficulties in ISPs, i.e., ill-posedness and nonlinearity. The retrieved results with super-resolution imaging for synthetic and experimental data are presented.

Biography

Kuiwen Xu (徐魁文) received the B.Eng. degree in electronics and information engineering and Ph.D. degree in electromagnetic fields and microwave technology from the Hangzhou Dianzi University and Zhejiang University, Hangzhou, China, in 2009 and 2014, respectively.

He was a visiting Ph.D. Student with the National University of Singapore, Singapore, from 2012 to 2013. From 2014 to 2015, he was a senior researcher with Huawei Technologies Co. Ltd in Hangzhou.

In 2015, he joined the School of Electronics and Information, Hangzhou Dianzi University, Hangzhou, China, as an Associate Professor. His research interests include microwave measurement, electromagnetic inverse problems, and novel concept of antenna and sensors.

*** ALL ARE WELCOME ***

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