



IEEE MTT/AP Orlando Chapter & Raj Mittra Distinguished Lecture Program

“Prediction and Reduction of Antenna RCS”

DATE/TIME: Monday, February 05, 2018 (5:00 PM-6:00 PM)

SPEAKER: Prof. Ying Liu
Xidian University, China

ABSTRACT:

Antenna is a special scattering object which should be used to transmit and receive the electromagnetic fields firstly. In recent years, antenna radar cross section (RCS) reduction has received high priority in the design of many platforms since it contributes to the total RCS of low-observable platforms significantly. Antenna RCS is distinctly different for frequencies in the operating band as compared to those out of the operating band. Thus, effective control of antenna RCS must address the in-band and out-of-band frequencies separately. However, methods those are effective out of the operating band impact the antenna performance in its operating band. Traditional methods for scattering objects are difficult to use for antennas. This talk will review the theory and the reduction methods for antennas. Some case studies including Broadband Polarization Rotation Reflective Surface, Low RCS and High-gain Antennas, etc., will be discussed. A conclusion will be given in the end.

BIOGRAPHY:



Ying Liu received the M.S. degrees and Ph.D. degree in electromagnetics from Xidian University, Xi'an, China, in 2001 and 2004 respectively. From 2006 to 2007, she carried on postdoctoral research in Hanyang University in Seoul Korea. She is currently a full Professor of Xidian University. She is the leader of the National Key Laboratory of Antennas and Microwave Technology and the Institute of Antennas and EM Scattering.

Her research interests include antenna theory and technology, prediction and control of antenna RCS. She has authored or coauthored over 100 refereed journal papers. She has also authored Prediction and Reduction of Antenna Radar Cross Section (Xi'an: Xidian Univ. Press, 2010), and Antennas for Mobile Communication Systems (Beijing: Electronics Industry Press, 2011). Dr. Liu is IET Fellow, a Senior Member of Chinese Institute of Electronics (CIE) and a senior member of IEEE. She was the recipient of “New Century Excellent Talents in University” of the Ministry of Education for China in 2011. She is the Vice-Chair of IEEE AP Xi'an Chapter (CH10767) and is in charge of organizing the activities of Xi'an Chapter. She also is an Associate Editor of IEEE Access and reviewers of many magazines such as IEEE Transactions on Antennas and Propagation etc. As an active researcher, she serves as TPC members or session chairs for several IEEE flagship conferences and has been invited to give invited lectures in several international academic conferences and seminars.

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