Organizers:

Yidong CHONG  
Nanyang Technological University, Singapore  
Email: yidong@ntu.edu.sg

Song-Liang CHUA  
DSO National Laboratories, Singapore  
Email: csliang@mit.edu

Chair: Yidong CHONG

14:00  B11-01 Invited  
Trefftz Approximations: Finite Difference Schemes and Nonreflecting Boundary Conditions  
Igor Tsukerman¹, Ralf Hiptmair²  
¹Department of Electrical and Computer Engineering, The University of Akron, Akron, OH 44325-3904, USA; ²Seminar of Applied Mathematics, ETH Zürich CH-8092 Zürich, Switzerland

14:30  B11-02 Invited  
Trefftz Approximations: A Nonasymptotic Homogenization Theory of Periodic Electromagnetic Structures  
Igor Tsukerman¹, Vadim Markel²  
¹Department of Electrical and Computer Engineering, The University of Akron, Akron, OH 44325-3904, USA; ²Departments of Radiology and Bioengineering and the Graduate Group in Applied Mathematics and Computational Science, University of Pennsylvania, Philadelphia, PA 19104, USA

15:00  B11-03  
Vertical Mode Expansion Method for Transmission of Light Through Bull’s Eye Structures  
Xun Lu¹, Yi Yan Lu²  
¹Department of Mathematics, City University of Hong Kong, Kowloon, Hong Kong, China

15:15  B11-04  
Vertical Mode Expansion Method for Transmission of Light Through a Single Elliptical Hole in a Slab  
Hualiang Shi, Ya Yan Lu  
Department of Mathematics, City University of Hong Kong, Kowloon, Hong Kong, China

Chair: Song-Liang CHUA

16:00  B11-05 Invited  
Fast Calculation of Scattering Problem in Layered Uniaxial Media  
Yu Zhong¹, Xudong Chen², Pingping Ding³, Marc Lambert³, and Dominique Lesselier³  
¹A*STAR, Institution of High Performance Computing, 138632 Singapore; ²Dept. of Electrical and Computer Engineering, National University of Singapore, 117576 Singapore; ³Dépt. de Recherche en Electromagnétisme - Laboratoire des Signaux et Systèmes, UMR8506 (CNRS-Supélec-Univ Paris-Sud), 3, rue Joliot-Curie, 91192 Gif-sur-Yvette cedex, France

16:30  B11-06 Invited  
Analytical Model for Large-Area Photonic Crystal Lasers  
Yong Liang¹, Chao Peng², and Susumu Noda¹  
¹Department of Electronic Science and Engineering, Kyoto University; ²State Key Laboratory of Advanced Optical Communication Systems and Networks, Department of Electronics, Peking University

17:00  B11-07  
Building of The Simulative Models on Laser Beam Propagation and Control  
Jianzhu Zhang, Yufang Yue, Feizhou Zhang, Jianzhu An, Xiaogang Xie  
Institute of applied Physics and Computational Mathematics, Beijing 100094, P.R. China

17:15  B11-08  
A Massively Parallel Simulation Tool for Analyzing Electromagnetic Characteristics of Electrically Large-Scale Targets  
Liu Yang, Zhou Haijing  
Institute of Applied Physics and Computational Mathematics, Beijing, China

17:30  B11-09  
The Weighted Edge Finite Element Method for Maxwell Equations with Strong Singularity  
Viktor A. Rukavishnikov  
Computing Center of Far-Eastern Branch, Russian Academy of Science Kim-Yu-Chen Str. 65, Khabarovsk 680000, Russia