## IEEE AP-S Distinguished Lecturer 講演会開催のお知らせ

IEEE AP-S Tokyo Chapter では, Prof. Qing Huo Liu による IEEE AP-S Distinguished Lecturer 講演会を下記要領で開催します.参加費は無料で, 貴重な機会ですので, ぜひご参 加いただけますようお願いします.

また、本講演後、東北大学電気通信研究所の伝送工学研究会も開催されますので、そちら にもぜひご参加下さい.

> IEEE AP-S Tokyo Chapter Chair 高橋 応明(千葉大)

■日時:2020年1月16日(木)13:30~14:50

■場所:東北大学工学部電子情報システム・応物系内 1号館2階大会議室

(〒980-8579 仙台市青葉区荒巻字青葉 6-6-05)

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■参加費:参加費無料でどなたでもご参加いただけます。

■プログラム:

【タイトル】Multiscale Computational Electromagnetics for Wireless Power Transfer, EMI and Antenna Applications

【講師】Prof. Qing Huo Liu (Duke University)

【講演概要】

Multiscale electromagnetic problems are commonly encountered in wireless power transfer, electromagnetic interference (EMI) and antenna applications, and are very challenging to solve with conventional numerical methods. Such multiscale problems often contain three electrical scales, i.e., the fine scale (geometrical feature size much smaller than a wavelength), the coarse scale (geometrical feature size greater than a wavelength), and the intermediate scale between the two extremes. In this seminar, we will first present our new methods in solving the low-frequency breakdown problem in electrically fine structures (such as in induction and resonance wireless power transfer). We will then present our recent work in solving realistic multiscale system-level EM design simulation problems with the multiscale discontinuous Galerkin time domain (DGTD) method, and its combination with nonlinear circuitries. We will also discuss the near-field imaging in EMI applications.

【講師ご略歴】

. Qing Huo Liu received his B.S. and M.S. degrees in physics from Xiamen University, China, and Ph.D. degree in electrical and computer engineering from the University of Illinois at Urbana-Champaign, USA. His research interests include computational electromagnetics and acoustics, inverse problems, and their applications in geophysics, nanophotonics, and biomedical imaging. He has published over 500 refereed journal papers in these areas, and has an H-index of 60. He was a Research Scientist and Program Leader with Schlumberger-Doll Research before moving to academia. Since 1999 he has been with Duke University where he is a Professor of Electrical and Computer Engineering.

Professor Liu is a Fellow of the IEEE, Fellow of the Acoustical Society of America, Fellow of Electromagnetics Academy, and Fellow of the Optical Society of America. He was the founding Editor-in-Chief of the IEEE Journal on Multiscale and Multiphysics Computational Techniques. He received the 1996 Presidential Early Career Award for Scientists and Engineers (PECASE) from the White House, the 1996 Early Career Research Award from the Environmental Protection Agency, and the 1997 CAREER Award from the National Science Foundation. He serves as an IEEE Antennas and Propagation Society Distinguished Lecturer. He is the recipient of the 2017 Technical Achievement Award and 2018 Computational Electromagnetics Award from the Applied Computational Electromagnetics from IEEE Antennas and Propagation Society. In 2018, he also received the Distinguished Alumni Award from the ECE Department, University of Illinois at Urbana-Champaign.

■主催 IEEE AP-S Tokyo Chapter ■お問い合わせ先: IEEE AP-S Tokyo Chapter (<u>aps\_tc@ieee-jp.org</u>)