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集美大学海洋信息工程学院 讲师/硕士生导师

福建省高层次人才 C 类

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教育背景

2015.9-2020.12	电子科技大学	电磁场与微波技术	博士
2017.9-2018.9	美国杨百翰大学	电子与电气工程	联合培养博士
2013.9-2015.6	电子科技大学	电磁场与微波技术	硕士
2009.9-2013.6	电子科技大学	电磁场与无线技术	学士

工作经历

2021.3-至今	集美大学	海洋信息工程学院	讲师
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研究方向

可编程智能超表面、电磁辐射与散射、天线理论与技术、计算电磁学及其应用等

主持或参加科研项目

1. 基于 Poynting 矢量方法的可重构天线研究与设计, 福建省自然科学基金青年基金, 2021J05179, 在研, 主持。
2. 基于 Poynting 能流方法的天线阵列设计与优化, ZQ2021019, 校启动项目, 在研, 主持。
3. 目标与涡旋电磁波耦合散射机理及新型成像方法研究, 国家自然科学基金委员会面上项目, 61971099, 在研, 参与。
4. 高功率仿真算法开发, 横向课题, S22332, 在研, 主持。
5. 暗室中天线测量的全波 CEM 仿真开发, 横向课题, S22333, 在研, 主持。

代表性成果

- [1] Lu Liu, Yifei Huang, Haochi Zhang. Design of a wide-angle and polarization-free 1-Bit programmable metasurface[J]. Frontiers in Materials, 2022, 9: 933163.
- [2] Lu Liu, Zaiping Nie. Performance improvement of antenna array-radome system based on efficient compensation and optimization scheme[J]. IEEE Antennas and Wireless Propagation Letters, 2019, 18(5): 866-870.
- [3] Lu Liu, Zaiping Nie. An efficient numerical model for the radiation analysis of microstrip patch antennas[J]. Applied Computational Electromagnetics Society Journal, 2019, 34(10): 1473-1478.
- [4] Lu Liu, Junming Diao, Karl F. Warnick. Array antenna gain enhancement with the Poynting streamline method[J]. IEEE Antennas and Wireless Propagation Letters, 2019, 19(1): 143-147.
- [5] Junming Diao, Lu Liu, and Karl F. Warnick. Receiving Dipole Antenna Analysis Using the Poynting Streamline Method: Providing new insights[J]. IEEE Antennas and Propagation Magazine

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[6] 林朝光, 刘璐, 宗显政, 聂在平, 孙格靓. 基于并行 VSIE-MLFMA 的任意非均匀等离子鞘套与天线窗一体化电磁建模技术及其应用[J]. 导弹与航天运载技术. 2022, 8 (4).

[7] Junming Diao, **Lu Liu**, Karl F. Warnick. An intuitive way to understand mutual coupling effects in antenna arrays using the poynting streamline method[J]. IEEE Transactions on Antennas and Propagation, 2018, 67(2): 884–891.

[8] Huang Y F, Jiang Z, **Liu L**, et al. Design of a 2-Bit wide-angle coding metasurface for bistatic RCS reduction[J]. Frontiers in Materials, 2022, 9: 956061.

[9] Chen P, Wang D, **Liu L**, et al. Design of UWB Wearable Conformal Antenna Based on Jean Material[J]. International Journal of Antennas and Propagation, 2022.

[10] Dingbang Wen; Yiling Wang; **Lu Liu**; Zaiping Nie; Improved Multiresolution Preconditioner With Loop-Flower Basis Functions, IEEE Antennas and Wireless Propagation Letters[J], 2017, 16: 1349-1352

[11] **Lu Liu**, et al. A Beamwidth Reconfigurable Strategy Inspired by Poynting Streamline Properties[C]. 2022 IEEE 5th International Conference on Electronic Information and Communication Technology (ICEICT). IEEE, 2022.

[12] **Lu Liu**, Yifei Huang, Haochi Zhang. A Wide-angle and Polarization-free 1-bit Programmable Metasurface[C]. 2022 International Applied Computational Electromagnetics Society(ACES-China) Symposium. Xuzhou, 2022.

[13] **Lu Liu**, Xianzheng Zong, Zaiping Nie. Specific excitation conditions achieved by near field source in EM analysis[C]. 2018 Cross Strait Quad-Regional Radio Science and Wireless Technology Conference (CSQRWC), Xuzhou, 2018.

[14] **Lu Liu**, Zaiping Nie. An efficient numerical model for analysis of microstrip antenna[C]. 2017 Progress In Electromagnetics Research Symposium, St. Petersburg, 2017.

[15] **Lu Liu**, Zaiping Nie, Dingbang Wen. An efficient preconditioner for analysis of composite dielectric and thin conductive plate objects[C]. 2017 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, San Diego, 2017.

[16] Junming Diao, **Lu Liu**, Karl F. Warnick. Understanding the Element-Gain Paradox for Receiving Arrays Using Poynting Streamlines[C]. 2018 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, Boston, 2018.