Curriculum Vita

Lijun Jiang

Electrical and Computer Engineering
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RESEARCH INTERESTS

- Applied heterogeneous electromagnetics for signal integrity (SI), power integrity (PI), EMC, and EMI in IC, package, PCB, and systems.
- Advanced SI/PI/EMC/EMI EDA solutions by machine learning, computational physics, and numerical methods.
- Antenna and microwave material engineering for IoT, wearable devices, imaging, etc.
- Multiphysics researches toward intelligent artificial materials, THz, optics, etc.

EDUCATION

Ph.D	University of Illinois at Urbana-Champaign, IL, USA. CCEM Lab, Dept. of ECE. Dissertation: *Studies on Low Frequency Fast Multipole Algorithms* Advisor: Professor W.C. Chew	1999.9 ~ 2004.7
M.S.	Tsinghua University Microwave Lab, Dept. of EE. Dissertation: *Broadband Patch Antenna Designs* Advisor: Professor X.X. Zhang	1993.9 ~ 1996.7
B.S.	Beijing University of Aeronautics and Astronautics Microwave Lab, Dept. of EE.	1989.9 ~ 1993.7

WORK EXPERIENCE

2023.9 ~ present	Kummer Endowed Professor. EMC Laboratory, Dept. of Electrical and Computer Engineering, Missouri University of Science and Technology, Rolla, MO (Formerly the University of Missouri Rolla, UMR)
2022.9 ~ 2023.8	Professor. Associate Director of Center of Intelligent Electromagnetic Systems, Dept. of Electronic Engineering, the Chinese University of Hong Kong, Hong Kong
2009.12 ~ 2023.12	Associate Professor (2009.12 ~ 2020.12), Honorable Associate Professor (2021.1 ~ 2023.12). Director of Electromagnetics and Optics Lab (from 2011). Dept. of Electrical and Electronic Engineering, the University of Hong Kong. (Tenured in Jul. 2014)
2018.3 ~ 2020.2	Visiting Associate Professor. Dept. of EE, University of Electronic Science and Technology of China.
2016.2 ~ 2017.8 2018.9 ~ present	Package Design Lead, Manager, Contract. Package and SI/PI Group, Semiconductor Technology Group, Teradyne Inc.
2014.9 ~ 2018.8	Visiting Scholar. Microwave Electronic Laboratory (Prof. Tatsuo Itoh), Dept. of Electrical and Computer Engineering, University of California, Los Angeles (UCLA). Sabbatical Leave during 2014.9 ~ 2015.3.

2013.6 ~ 2015.10	Visiting Scholar at Microwave and Antenna Institute, Dept. of EE, Tsinghua University.
2004.8 ~ 2009.11	Senior Engineer (2009), Research Staff Member (2005~2008), Postdoc (2004), EIP Group, Blue Gene Department, IBM T. J. Watson Research Center, Yorktown Heights, NY.
1996.7 ~ 1999.7	RF and Microwave Application Engineer, EDA Solution Specialist, Test and Measurement Organization, Hewlett-Packard (HP), Beijing Office.

HONORS AND AWARDS

- The Best Paper Award of the 23rd IEEE AP/MTT Postgraduate Conference (AP Section), Oct. 2022. (Co-author)
- IEEE Hong Kong Section 50th Anniversary Medal, Oct. 2022.
- The annual Outstanding Paper Award 2020 of *Frontiers of Physics*. (Advisor of the First Author and Contact Author)
- The 21st IEEE (HK) AP/MTT Postgraduate Conference Microwave Theory and Techniques Merit Prize, Nov. 21, 2020 virtually in Shenzhen and Hong Kong (Advisor of the Student)
- The Chinese Institute of Electronics Science and Technology Silver Award, Aug. 2020. (Lead PI)
- ACES Honorable Mention Award, Nanjing, Aug. 2019. (Advisor of the Student)
- Champion in the 19th IEEE AP/MTT Postgraduate Conference (AP Section), Oct. 2018. (Advisor of the Student)
- Silver Medal of the 4th China College Students 'Internet Plus' Innovation and Entrepreneurship Competition, Oct. 2018, China (Advisor of the Students and Team)
- Young Scientist Award, PIERS 2018, Toyama, Japan (Advisor of the Awardee)
- Best Student Paper Award 3rd Prize, PIERS 2018, Toyama, Japan (Advisor of the Student)
- Young Scientist Award, 2018 International Applied Computational Electromagnetics Society Symposium in China (ACES-China 2018), Beijing (Advisor of the Awardee)
- Outstanding Student Paper Award, the Cross Strait Quad-Regional Radio Science and Wireless Technology Conference (CSQRWC) 2018, Xuzhou, China (Advisor of the Student)
- Challenge Cup National Competition – Hong Kong Regional Final: Hong Kong University Student Innovation and Entrepreneurship Competition 2018 Second Prize Award. (Advisor of the Awardee)
- Technical Achievement Award by IEEE EMC Society, Singapore, May 2018.
- Outstanding Young Scientist Award by IEEE APEMC, Singapore, May 2018. (Advisor of the Awardee)
- The Third Place Best Student Paper Award, International Applied Computational Electromagnetics (ACES) Symposium, Firenze, Italy, Mar. 2017. (Advisor of the First Author)
- The Best Poster Paper Award, IEEE EPEPS, San Diego, CA, Oct. 2016. (Advisor of the First Author)
- President's Memorial Award Presented in Memory of Guy deBurgh and Bill Kimmel, IEEE Int. Symposium on EMC, Ottawa, Canada, Jul. 2016. (Advisor of the First Author)
- Best Student Symposium Paper Award First Place, IEEE Int. Symposium on EMC, Ottawa, Canada, Jul. 2016. (Advisor of the First Author)
- Young Scientist Award, URSI Commission B International Symposium on Electromagnetic Theory (EMTS 2016) in Espoo, Finland in Aug. 2016. (Advisor of the First Author)
- Honorable Mention EMTS 2016 Young Scientist Best Paper Award, URSI Commission B International Symposium on Electromagnetic Theory (EMTS 2016) in Espoo, Finland in Aug. 2016. (Advisor of the First Author)
- Outstanding Technical Contribution Award, 2016 AP EMC Symposium, Shenzhen, May 2016.
- Best Student Paper 5th Place, IEEE International Conference on ICWITS-ACES, Honolulu, HI, USA, Mar. 2016. (Advisor of the First Author)
- Honorable Mention of 2015 IEEE AP-S Student Paper Competition, Jul. 2015. (Advisor of the First Author)
- The 23th IEEE EPEP Best Paper Award, Portland, Oregon, Oct. 2014. (Advisor of the First Author)

- The Best Student Paper Award (2nd Place) in Antennas and Microwave Engineering at 2014 PIERS, Guangzhou, Aug. 2014. (Advisor of the First Author)
- The Student Paper Award at the 12th International Workshop on Finite Elements for Microwave Engineering, Chengdu, China, May. 2014. (Advisor of the First Author)
- The First Place Best Student Paper Award of 30th International Review of Progress in Applied Computational Electromagnetics (ACES), Jacksonville, FL, Mar. 2014. (Advisor of the First Author)
- The First Place of the Best Student Paper Award of IEEE 14th HK AP/MTT Postgraduate Conference, 2013 (Advisor of the First Author)
- IBM Research Technical Achievement Award, IBM T. J. Watson Research, USA, 2008.
- IBM First Patent Application Invention Achievement Award, IBM T. J. Watson Research, USA, 2007.
- Y. T. Lo Outstanding Research Award, University of Illinois at Urbana-Champaign, USA, 2004.
- IEEE Microwave Theory and Techniques Society Graduate Fellowship Award, USA, 2003.
- National Collegiate Engineering Awards (NCAA), the United States Achievement, USA, 2001.
- Hewlett-Packard (HP) STAR Award, Hewlett Packard Headquarter, USA, 1998.
- Best Paper Winner of the 1st Chinese GPS Technology Symposium, China, 1994.

PROFESSIONAL ACTIVITIES

- IEEE Fellow since 2019.1.
- ACES Fellow since 2019.1.
- The World's Top 1% Scholar by ESI, Oct. 2018.

- Associate Guest Editor of IEEE Trans. on MTT Special Issue, 2020 ~ 2021.
- Associate Editor of IEEE Transactions on Antennas and Propagation, Jul 2013 ~ Sept. 2019.
- Associate Editor of Progress in Electromagnetics Research, 2012 ~ Now.
- Associate Editor of ACES Express, 2015 ~ 2019.
- Associate Guest Editor of the Proceedings of IEEE Special Issue, 2011 ~ 2012.
- Society Member of IEEE EMC, IEEE AP, and IEEE MTT.

- Vice Chair of IEEE EMC-S Special Committee 3: ML and AI in EMC & SI/PI, 2023.8 ~ present.
- Chair of IEEE APEMC International Steering Committee, Oct. 2022 ~ present.
- ACES-China International Advisory Committee Member and Award Committee Member, 2024.
- IEEE APS Award Committee Member, 2020 ~ 2022.
- TPC Chair of TC11 of IEEE APEMC 2021.
- Chair of IEEE EMC Hong Kong Chapter from 2020 ~ present.
- TPC Co-Chair of IEEE APMC, Hong Kong, 2020.
- ISC of 2019 ICCEM, Nanjing, 2019.
- TPC Chair of IEEE APEMC, Shenzhen, China, 2016.
- TPC of IEEE APEMC, 2017 ~ 2020.
- PIERS SC1 Co-Chair, 2014~2016.
- International Advisory Committee Member for EMN Meeting for Light-Matter Interaction, Singapore, 2016.
- TPC member of the IEEE Workshop on Signal and Power Integrity (SPI), Italy, 2015 ~ now.
- TPC member of the 13th International Workshop on Finite Elements for Microwave Engineering, 2016.
- International Advisory Board member of iEMPT 2015.
- TPC Co-chair of the 12th International Workshop on Finite Elements for Microwave Engineering, 2014.
- TPC Co-chair of the 7th International Conference on Nanophotonics (ICNP) and TPC member of the 3rd Conference on Advances in Optoelectronics and Micro/Nano Optics (AOM), 2013.

- General co-chair of International Workshop on Pulsed Electromagnetic Field, Delft, the Netherlands, 2013.
- Chair of IEEE 14th HK AP/MTT Postgraduate Conference, Oct. 2013.
- The Panelist of the Expert Review Panel (ERP) of Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies, Jan. 1st, 2013 – Dec. 31st, 2015.
- Elected TPC Member of IEEE EPEP since 2014 ~ 2019.
- TPC Member of IEEE IWS, IEEE EDAPS, IEEE EMC-S, etc.
- Member of IEEE EMC TC-9 and TC-10, 2011 ~ present.
- Scientific Consultant to Hong Kong ASTRI (Hong Kong Applied Science and Technology Research Institute Company Limited), 2010-2011.
- Semiconductor Research Corporation (SRC) Industrial Liaison, 2005~2009.

- Reviewer for IEEE Transactions, Proceedings of IEEE, Proceedings of the Royal Society, PIERS, ACES, etc.

RESEARCH GRANTS

- Lijun Jiang (PI), NSF IUCRC Research Project with IBM, 2024-Present, $70,000 (55%).
- Lijun Jiang (PI), NSF IUCRC Research Project with Cadence, 2024-Present, $70,000 (55%).
- Lijun Jiang (PI), NSF IUCRC Research Project with Asustech Computer Inc., 2024-Present, $70,000 (55%).
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- Lijun Jiang (PI), "The Time-Variant Multi-Frequency Field Extraction Based on the Data Driven Method for the Near-Field Scanning," 819,079 HKD, GRF by HK University Grants Committee, 7/1/2023 ~ 6/30/2025. (Transferred to Colleagues from Sept. 2023).
- Lijun Jiang (PI), "Uncertain Electromagnetic Analysis and Its Applications," 1,893,121 HKD, by CUHK, 9/5/2022 ~ 8/31/2023. (Transferred to CUHK CiEMS from Sept. 2023).
- Lijun Jiang (Co-PI – 50%), "Center of Intelligent Electromagnetic Systems," 2,030,994 HKD, by CUHK Engineering, 12/1/2022 ~ 11/30/2032. (Transferred to Colleagues from Sept. 2023).
- Lijun Jiang (PI), "Statistical Electromagnetic Field Characterization Method for Radiations from High-Speed Electronic Systems," 150,000 HKD, Direct Grant for Research, by CUHK, 2/1/2023 ~ 1/31/2025. (Transferred to CUHK from Sept. 2023).
- Hong Wong (PC), Lijun Jiang (one of 6 Co-PIs), "High-Resolution Antenna Measurement System with Robotic Arms for Millimeter-wave," 4,103,932 HKD, CRF by HK University Grants Committee, 3/20/2020 ~ 2/28/2023.
- Lijun Jiang (PI), "Novel Computational Electromagnetic Methods for Nonlinear Plasmonic Responses with Orbital Angular Momentum," 330,057 HKD, GRF by HK University Grants Committee, 1/1/2019 ~ 12/31/2020.
- Lijun Jiang (PI), "The Novel Computational Electromagnetic Method for Nonlinear Characterizations," 462,696 HKD, GRF by HK University Grants Committee, 1/1/2019 ~ 12/31/2020.
- Lijun Jiang (PI), "Computational Electromagnetics in Scattering Interactions of Earth Terrain for Remote Sensing Modeling," 50,000 USD, US Asian Office of Aerospace Research and Development from US Air Force Research Laboratory, 3/1/2017 ~ 2/28/2019.
- Lijun Jian (PI), "RF design for 5G Mission critical and Reliable Communications," 180,00 HKD, HK ASTRI, 1/1/2019 ~ 6/30/2019.
- Lijun Jiang (PI), "Statistical Eye Diagram Analysis for Conducted EMI Noise," 203,448 HKD, Huawei, 1/15/2018 ~ 4/14/2018.
- Lijun Jiang (PI), "Professional Supporting Service for Medium-altitude Earth Orbit Search and Rescue System (MEOSAR)," 240,000 HKD, HK EMSD, 11/1/2015 ~ 4/30/2016.
- Lijun Jiang (PI), "Full-Wave Characterization and Electromagnetic Imaging of 3D Medical Nanobots," 682,000 HKD, GRF by HK University Grants Committee, 9/1/2014 ~ 8/31/2016.

- Lijun Jiang (PI), Wengcho Chew, "Novel Low Profile 3-Axis Polarization Technology for the Near Field UHF RFID Reader Antenna System," 1,356,949 HKD, HK ITSP, 10/3/2014 ~ 4/2/2016.
- Lijun Jiang (PI, "An Accurate Filter-Oriented Full-Dynamic Engine for Low-Frequency Wireless Power Transfer," 496800 HKD, GRF by HK University Grants Committee, 1/1/2014 ~ 12/31/2016.
- Lijun Jiang (PI), "Novel Broadband Domain Decomposition Methods for Complex Heterogeneous Electromagnetic Environment," 700,000 CNY, Chinese NSF, 1/1/2013 ~ 12/31/2016.
- Lijun Jiang (PI), "Multi-Scale Computational Electromagnetics," 165,575 USD, US Asian Office of Aerospace Research and Development from US Air Force Research Laboratory, 10/1/2012 ~ 9/30/2015.
- Lijun Jiang (PI), "Multi-Physics Casimir Force Calculation and Its Effects on NEMS," 1,021,085 HKD, GRF by HK University Grants Committee, 1/1/2012 ~ 12/31/2015.
- Lijun Jiang (PI), "IC EMC", 1,440,000 HKD, Huawei, 6/1/2012 ~ 4/30/2013, 9/1/2013~8/31/2014, 8/1/2014 ~ 7/31/2015.
- Lijun Jiang (PI), "A Novel Integral Equation Based Domain Decomposition Method with the Full Band Physical Model and Full Band Numerical Engine," 444,000HKD, GRF by HK University Grants Committee, 1/1/2012 ~12/31/2013.
- Lijun Jiang (PI), "A New Generalized Broadband Methodology for the Radiated Emission Characterization of Integrated Circuits on Printed Circuit Boards," 460,000 HKD, GRF by HK University Grants Committee, 1/1/2012 ~ 12/31/2013.
- Lijun Jiang (PI), "Optimal Design of Novel Reconfigurable UHF and Antenna Systems for the Smart Shelf RFID Technology," 925,201 HKD, HK ITPS through HK LSCM, 3/1/2012 ~ 8/31/2013.
- Guanhua Chen (PC), Lijun Jiang (PI, one of 7 PIs, in Charge of CEM Direction), "Theory, Modeling, and Simulation of Emerging Electronics," 150,000,000 HKD, 1/1/2010 ~ 12/31/2017.

TEACHING

- EE 5660 Microwave Principles of Mixed-Signal Designs, Fall 2024 (21 Students)
- EE 3600 Electromagnetics, Spring 2024 (42 Students, Effectiveness 3.2/4)
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- Numerical Methods for Computer Applications
- Introduction to Electromagnetic Waves and Fields
- Microwave Engineering
- Numerical Methods and Optimization (Optimization Part)
- Integrated Project on FPGA
- Introduction to Electricity and Magnetism, and Engineering Electromagnetism.
- Advanced Electromagnetic Waves and Fields.

PUBLICATIONS

Peer-reviewed Journal Papers	> 200
Conference Papers	> 170
Book (Co-author)	1
Book Chapters	6

JOURNAL PUBLICATIONS

1. Yanming Zhang, Wenchao Xu , A-Long Jin , Min Li , Ping Yuan , Lijun Jiang , Steven Gao, "A Tensor-Based

Data-Driven Approach for Multidimensional Harmonic Retrieval and Its Application for MIMO Channel Sounding," in *IEEE Internet of Things Journal*. (accepted)

2. Y. Ping, Y. Zhang and L.J. Jiang, "Uncertainty Quantification in PEEC Method: A Physics-Informed Neural Networks-Based Polynomial Chaos Expansion," in *IEEE Transactions on Electromagnetic Compatibility*, doi: 10.1109/TEMC.2024.3462940. (early access)
3. Y. Zhang, P. Ma, S. Gao and L.J. Jiang, "An Unsupervised Learning Framework for Determining the Excitation Coefficients Using Near-Field Antenna Measurements," in *IEEE Transactions on Electromagnetic Compatibility*. doi: 10.1109/TEMC.2024.3427682. (early access)
4. Y. Zhang and L.J. Jiang, "A Hybrid Model-Based Data-Driven Framework for the Electromagnetic Near-Field Scanning," in *IEEE Transactions on Electromagnetic Compatibility*. doi: 10.1109/TEMC.2024.3411406. (early access)
5. H. M. Yao, L.J. Jiang and M. Ng, "Enhanced Deep Learning Approach Based on the Conditional Generative Adversarial Network for Electromagnetic Inverse Scattering Problems," in *IEEE Transactions on Antennas and Propagation*, vol. 72, no. 7, pp. 6133-6138, July 2024, doi: 10.1109/TAP.2024.3388205.
6. Z. Wu, L. J. Jiang, S. Sun and P. Li, "A Hard Constraint and Domain Decomposition Based Physics-Informed Neural Network Framework for Nonhomogeneous Transient Thermal Analysis," in *IEEE Transactions on Components, Packaging and Manufacturing Technology*, Jun. 2024. doi: 10.1109/TCPMT.2024.3416523.
7. H. M. Yao, H. H. Zhang, L.J. Jiang and M. Ng, "Enhanced Deep Learning Approach for Electromagnetic Forward Modeling of Dielectric Target Within the Wide Frequency Band Using Deep Residual Convolutional Neural Network," in *IEEE Antennas and Wireless Propagation Letters*, vol. 23, no. 6, pp. 1884-1888, June 2024, doi: 10.1109/LAWP.2024.3372437
8. Y.M. Zhang, P. Ma, L.J. Jiang and S. Gao, "Time-Resolved Electromagnetic Near-Field Scanning: Dual Sparse Sampling in Time and Space," in *IEEE Transactions on Electromagnetic Compatibility*, vol. 66, no. 3, pp. 928-938, June 2024, doi: 10.1109/TEMC.2024.3381980. ***(Monthly most popular paper, Oct. 2024)***
9. H. M. Yao, M. Li, L.J. Jiang, K. L. Yeung and M. Ng, "Antenna Array Diagnosis Using a Deep Learning Approach," in *IEEE Transactions on Antennas and Propagation*, vol. 72, no. 6, pp. 5396-5401, June 2024, doi: 10.1109/TAP.2024.3387689.
10. Z. Xiao, Z. A. Wang, L. J. Jiang and P. Li, "Modeling Wideband Radiated Emissions From PCBs in Shielding Enclosures Based on Single-Plane Phaseless Near-Field Scanning," in *IEEE Transactions on Electromagnetic Compatibility*, vol. 66, no. 3, pp. 907-916, June 2024, doi: 10.1109/TEMC.2024.3362960. ***(Monthly most popular paper, Oct. 2024)***
11. H. M. Yao, M. Ng and L.J. Jiang, "Deep Learning Electromagnetic Inversion Solver Based on a Two-Step Framework for High-Contrast and Heterogeneous Scatterers," in *IEEE Transactions on Antennas and Propagation*, vol. 72, no. 6, pp. 5337-5342, June 2024, doi: 10.1109/TAP.2024.3372772.
12. H.M. Yao, L.J. Jiang and M. Ng, "Deep-Learning-Based Source Reconstruction Method Using Deep Convolutional Conditional Generative Adversarial Network," in *IEEE Transactions on Microwave Theory and Techniques*, vol. 72, no. 5, pp. 2949-2960, May 2024, doi: 10.1109/TMTT.2024.3369420.
13. H.M. Yao, H.H. Zhang, L.J. Jiang and M.K.P. Ng, "Fast Electromagnetic Inversion Solver Based on Conditional Generative Adversarial Network for High-Contrast and Heterogeneous Scatterers," in *IEEE Transactions on Antennas and Propagation*, vol. 72, no. 4, pp. 3485-3494, April 2024, doi: 10.1109/TAP.2024.3369683.
14. H.H. Zhang, Z.L. Jia, P.F. Zhang, Y. Liu, L.J. Jiang and D. Z. Ding, "Electromagnetic-Circuital-Thermal-Mechanical Multiphysics Numerical Simulation Method for Microwave Circuits," in *IEEE Journal on Multiscale and Multiphysics Computational Techniques*, vol. 9, pp. 129-141, Mar. 2024, doi: 10.1109/JMMCT.2024.3372619.
15. Lijun Jiang, "Machine Learning for EMC/SI/PI – Blackbox, Physics Recovery, and Decision Making", *IEEE EMC Magazine*, Volume: 12, Issue: 4, 4th Quarter 2023. (***Top 3 the Most Popular Paper for over 6 months***)
16. Y. Zhang and L. J. Jiang, "Space–Time–Frequency Characterization in Electromagnetic Near-Field Scanning: A

Data-Driven Approach," in *IEEE Transactions on Electromagnetic Compatibility*, vol. 65, no. 6, pp. 1921-1929, Dec. 2023, doi: 10.1109/TEMC.2023.3312315.

17. Y. Zhang, L. J. Jiang and H. -T. Chou, "Data-Driven Scheme for Joint Estimation of Direction-of-Arrival and Frequency with Uniform Linear Array," in *IEEE Transactions on Vehicular Technology*, vol. 72, no. 12, pp. 15706-15718, Dec. 2023, doi: 10.1109/TVT.2023.3289889.
18. H. H. Zhang, J.B. Chao, Y.W. Wang, Y. Liu, Y.X. Xu, H.M. Yao, L.J. Jiang, and X.H. Li, "Electromagnetic–Thermal Co-Design of Base Station Antennas With All-Metal EBG Structures," in *IEEE Antennas and Wireless Propagation Letters*, vol. 22, no. 12, pp. 3008-3012, Dec. 2023, doi: 10.1109/LAWP.2023.3308585.
19. Y. Zhang and L.J. Jiang, "A Direct Data Approach to Joint 2-D DOA and Frequency Estimation With L-Shaped Array," in *IEEE Trans. on Aerospace and Electronic Systems*, vol. 59, no. 4, pp. 3684-3694, Aug. 2023, doi: 10.1109/TAES.2022.3230626.
20. Zheng Lang Jia, Huan Huan Zhang, Da Zhi Ding, Lei Zhao, Qiang Ren and Lijun Jiang, "Time-Domain Shielding Effectiveness Analysis Based on DGTD Method Accelerated by Local Time-Stepping and Parallel Techniques," *IEEE Trans. on Electromagn. Compat*., vol. 65, no. 3, pp. 900-911, June 2023.
21. Huan Huan Zhang, He Ming Yao, Lijun Jiang and Michael Ng, "Deep Long Short-Term Memory Networks-Based Solving Method for the FDTD Method: 2-D Case," *IEEE Microwave and Wireless Technology Letters*, vol. 33, no. 5, pp. 499-502, May 2023
22. Huan Huan Zhang, He Ming Yao, Lijun Jiang and Michael Ng, "Fast Full-Wave Electromagnetic Forward Solver Based on Deep Conditional Convolutional Autoencoders," *IEEE Antennas Wirel. Propag. Lett*., vol. 22, no. 4, pp. 779-783, April 2023
23. Y. Zhang and L.J. Jiang, "Suppressing White-Noise Interference for Orbital Angular Momentum Waves via the Forward–Backward Dynamic Mode Decomposition," in *IEEE Trans. Antennas Propag*., vol. 71, no. 3, pp. 2879-2884, March 2023, doi: 10.1109/TAP.2022.3228645.
24. Huan Huan Zhang, He Ming Yao, Lijun Jiang and Michael Ng, "Solving Electromagnetic Inverse Scattering Problems in Inhomogeneous Media by Deep Convolutional Encoder-Decoder Structure," *IEEE Trans. Antennas Propag*., vol. 71, no. 3, pp. 2867-2872, March 2023.
25. Y. Zhang and L.J Jiang, "A Novel Data-Driven Method for Two-Dimensional Angles Finding via Uniform Rectangular Array with Automatic Pairing," in *IEEE Transactions on Vehicular Technology*, vol. 72, no. 2, pp. 1972-1981, Feb. 2023, doi: 10.1109/TVT.2022.3210118.
26. Huan Huan Zhang, He Ming Yao, Lijun Jiang and Michael Ng, "Enhanced Two-Step Deep-Learning Approach for Electromagnetic-Inverse-Scattering Problems: Frequency Extrapolation and Scatterer Reconstruction," *IEEE Trans. Antennas Propag*., vol. 71, no. 2, pp. 1662-1672, Feb. 2023.
27. Heming Yao, Lijun Jiang, and Michael Ng, "Implementing the Fast Full-Wave Electromagnetic Forward Solver Using the Deep Convolutional Encoder-Decoder Architecture," *IEEE Trans. on Antennas and Propagation*, vol 71, no. 1, pp. 1152-1157, Jan. 2023. doi: 10.1109/TAP.2022.3216920.
28. W. J. Chen, S. Sun, Y. Liu, L.J. Jiang and J. Hu, "Improved A-EFIE System for Electromagnetic Simulation in Low Frequency Regime," in *IEEE Antennas Wirel. Propag. Lett*., vol. 21, no. 9, pp. 1752-1756, Sept. 2022, doi: 10.1109/LAWP.2022.3179270.
29. H. H. Zhang, Z. S. Xue, X. Y. Liu, P. Li, L.J Jiang and G. M. Shi, "Optimization of High-Speed Channel for Signal Integrity with Deep Genetic Algorithm," in *IEEE Trans. on Electromagn. Compat*., vol. 64, no. 4, pp. 1270-1274, Aug. 2022, doi: 10.1109/TEMC.2022.3161298. (Popular Paper of the Month)
30. H. M. Yao, R. Guo, M. Li, L.J. Jiang and M. K. P. Ng, "Enhanced Supervised Descent Learning Technique for Electromagnetic Inverse Scattering Problems by the Deep Convolutional Neural Networks," in *IEEE Trans. Antennas Propag*., vol. 70, no. 8, pp. 6195-6206, Aug. 2022, doi: 10.1109/TAP.2022.3196496.
31. Z. A. Wang, Z. F. Xiao, J. F. Mao, L. J. Jiang, H. Bagci and P. Li, "Source Reconstruction of Electronic Circuits in Shielding Enclosures Based on Numerical Green's Function and Application in Electromagnetic Interference Estimation," in *IEEE Transactions on Microwave Theory and Techniques*, vol. 70, no. 8, pp. 3789-3801, Aug.

2022, doi: 10.1109/TMTT.2022.3178428.

32. Min Li, MY Jamal, X Li, KL Yeung, L.J. Jiang, T Itoh, R Murch, "A Millimeter-Wave Frequency-Reconfigurable Fabry–Pérot Cavity Antenna," in *IEEE Antennas Wirel. Propag. Lett*., vol. 21, no. 8, pp. 1537-1541, Aug. 2022, doi: 10.1109/LAWP.2022.3173411.
33. M. Dong, L. Chen, L.J. Jiang, P. Li and H. Bagci, "An Explicit Time-Domain Finite-Element Boundary Integral Method for Analysis of Electromagnetic Scattering," in *IEEE Trans. Antennas Propag*., vol. 70, no. 7, pp. 6089-6094, July 2022, doi: 10.1109/TAP.2022.3142319.
34. H.M. Yao, Y.M. Zhang, L.J. Jiang, H.T. Ewe, and M. Ng, "Snow Parameters Inversion from Passive Microwave Remote Sensing Measurements by Deep Convolutional Neural Networks", *Sensors,* Jun. 2022 (13), 4769.
35. Zhang, P.P. Wang, L.J. Jiang, W. Sha, M.S. Tong, Y. Liu, W.J. Wu, and G.M. Shi, "Parallel Higher Order DGTD and FETD for Transient Electromagnetic-Circuital-Thermal Co-Simulation," in *IEEE Transactions on Microwave Theory and Techniques*, vol. 70, no. 6, pp. 2935-2947, Jun. 2022. (doi: 10.1109/TMTT.2022.3164703) (*Monthly Popular Paper*)
36. Y. Zhang and L. J. Jiang, "Modelling Transmission Lines Using a Hybrid Knowledge-Based and Data-Driven Approach", in *IEEE Trans. On Signal Power Int.,* vol. 1, pp. 12-21, Apr. 2022. (doi: 10.1109/TSIPI.2022.3167937) (*Monthly Popular Paper*)
37. Y. Zhang, L. J. Jiang, and H. T. Ewe, "Novel Data-Driven Spatial-Spectral Correlated Scheme for Compression of Hyperspectral Images", in *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens*., vol. 15, pp. 3877-3890, May 2022. (doi: 10.1109/JSTARS.2022.3173999)
38. M. Li, K. L. Yeung, L. Jiang, and R. Murch, "Design of wideband decoupling networks for MIMO antennas based on an N-ary optimization algorithm," *IEEE Trans. on Vehicular Technology*, vol. 71, iss. 5, pp 5246-5258, May 2022. (doi: 10.1109/TVT.2022.3156397)
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1. Yanming Zhang, Shichang Gao, and Lijun Jiang, "A Data-driven Approach to Time-domain Electromagnetic Modeling Based on Dynamic Mode Decomposition," *ACES-China 2024 Conference*, Xi'an, China, Aug. 2024. (ACES Young Scientist Honorable Mention for Dr. Zhang, my Postdoc in HK)
2. Yanming Zhang, Shichang Gao, Lijun Jiang, "A Hybrid Algorithm to Dual Sparse Sampling Measurement in Time-Resolved Electromagnetic NearField Scanning," *IEEE International EMC+SIPI Symposium*, Phoenix, AZ, Aug. 2024.
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5. W.J. Chen, S. Sun, Y. Liu, L.J. Jiang, and J. Hu, "Enhanced A-EFIE System with Quasi-Helmholtz Projectors," the 23rd IEEE (HK) AP/MTT Postgraduate Conference, Nov. 19th, 2022, Hong Kong. (*MTT Best Paper Award*)
6. Y.M. Zhang and L.J. Jiang, "Analysis of Electromagnetic Vortex Beams using Modified Dynamic Mode Decomposition," the 21st IEEE (HK) AP/MTT Postgraduate Conference Microwave Theory and Techniques, Nov. 21, 2020 virtually in Shenzhen and Hong Kong. (*Merit Prize*)
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