



People



Dr. L. Jiang

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Dr. L. Jiang

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Research Interests

Research Focuses:

Large-scale heterogeneous electromagnetics, VLSI power integrity and signal integrity, nano-scale electromagnetism for THz and optoelectronics, and microwave material engineering inspired by nano optics.

Brief Bio:

Dr. Lijun Jiang received the Bachelor Degree in electrical engineering from the Beijing University of Aeronautics and Astronautics in 1993, the Master Degree from the Tsinghua University in 1996, and the Ph.D from the University of Illinois at Urbana-Champaign (UIUC) in 2004. From 1996 to 1999, he was an Application Engineer with the Hewlett-Packard Company (HP). From 2004 to 2009, he has been the Postdoc, the Research Staff Member, and the Senior Engineer at IBM T.J. Watson Research Center. Since Dec. 2009, he has been the Associate Professor at the Department of Electrical and Electronic Engineering, the University of Hong Kong. He was the Senior Visiting Professor at Tsinghua University from Jun. 2013 to Jun. 2014. And he has been the visiting scholar to Professor T. Itoh's group at UCLA since Sept. 2014 and spent his Sabbatical at UCLA during Sept. 2014 to Mar. 2015.

Awards:

He and his research team have received numerous international awards and recognitions for outstanding researches he mentored and conducted.

- Young Scientist Award, PIERS 2018, Toyama, Japan, Aug. 2018. (Advisor of the awardee)
- Best Student Paper Award 3rd Prize, PIERS 2018, Toyama, Japan, Aug. 2018. (Advisor of the student)
- Young Scientist Award, 2018 International Applied Computational Electromagnetics Society Symposium in China (ACES-China 2018), Beijing, China, Jul. 2018. (Advisor of the awardee)
- Outstanding Student Paper Award, the Cross Strait Quad-Regional Radio Science and Wireless Technology Conference (CSQRWC) 2018, Xuzhou, China, Jul. 2018. (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.
- The Best Poster Paper Award, IEEE EPEPS, San Diego, CA, Oct. 2016.
- The Best Student Paper Award, 2nd Runner-Up, the 17th IEEE Macau/HK AP/MTT Postgraduate Conference, Macau, Oct., 2016.
- 2016 President's Memorial Award Presented in Memory of Guy deBurgh and Bill Kimmel, IEEE Int. Symposium on EMC, Ottawa, Canada, Jul. 2016.
- 2016 Best Student Symposium Paper Award First Place, IEEE Int. Symposium on EMC, Ottawa, Canada, Jul. 2016.
- EMTS 2016 Young Scientist Award, URSI Commission B International Symposium on Electromagnetic Theory (EMTS 2016) in Espoo, Finland on Aug. 2016.
- Honorable Mention EMTS 2016 Young Scientist Best Paper, URSI Commission B International Symposium on Electromagnetic Theory (EMTS 2016) in Espoo, Finland on Aug. 2016.
- Honorable Mention of 2015 IEEE AP-S Student Paper Competition, Jul. 2015.
- The 23th IEEE EPEP Best Paper Award, Portland, Oregon, Oct. 2014.
- The Best Student Paper Award (2nd Place) in Antennas and Microwave Engineering at 2014 PIERS, Guangzhou, Aug. 2014.
- The Student Paper Award at the 12th International Workshop on Finite Elements for Microwave Engineering, Chengdu, China, May. 2014.
- The First Place Best Student Paper Award of 30th International Review of Progress in Applied Computational Electromagnetics (ACES), Jacksonville, FL, Mar. 2014.
- The Finalist of the Best Student Paper Award at IEEE International EMC Symposium, 2014.
- The First Place of the Best Student Paper Award of IEEE 14th HK AP/MTT Postgraduate Conference, 2013.
- The Finalist of IEEE/ACM ICCAD Best Paper Award, San Jose, CA, 2012.
- 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.
- 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.

Scholarships:

He is an IEEE Senior Member, the Associate Editor of IEEE Transactions on Antennas and Propagation, the Associate Editor of Progress in Electromagnetics Research, the Associate Editor of ACES Express, the Associate Guest Editor of the Proceedings of IEEE Special Issue in 2011~2012, an IEEE AP-S Member, an IEEE MTT-S member, an IEEE EMC-S member, an ACES member, and a member of Chinese Computational Electromagnetics Society. He was the Semiconductor Research Cooperation (SRC) Industrial Liaison for several academic projects. He served as the Scientific Consultant to Hong Kong ASTRI (Hong Kong Applied Science and Technology Research Institute Company Limited) in 2010-2011, the Panelist of the Expert Review Panel (ERP) of Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies since Jan. 1st, 2013.

Academic Services:

He is the TPC Chair of 2016 IEEE APEMC, the TPC Chair of the 7th International Conference on Nanophotonics (ICNP)/the 3rd Conference on Advances in Optoelectronics and Micro/Nano Optics (AOM), the General co-chair of 2013 International Workshop on Pulsed Electromagnetic Field at Delft, the Netherlands, the TPC Co-chair of the 12th International Workshop on Finite Elements for Microwave Engineering, the PIERS SC1 Co-chair since 2014, the General Chair of 2014 IEEE 14th HK AP/MTT Postgraduate Conference. He was the elected TPC member of IEEE EPEP since 2014, the TPC member of IEEE EDAPS since 2010, the TPC member of 2013 IEEE ICMTCE, the scientific committee member of 2010 IEEE SMEE, the special session organizers of IEEE EDAPS, IEEE EMC, ACES, AP-RASC, co-organizer of HKU Computational Science and Engineering Workshops in 2010-2012, the TC-9 and TC-10 member of

IEEE EMC-S since 2011, and session chairs of many international conferences. He also serves as the reviewer of IEEE Transactions on several topics, and other primary electromagnetics and microwave related journals. He has been working collaboratively with frontier international researchers.

Journal Publications ([Google Scholar Link](#))

- K. Dhvaj, X.Q. Li, L.J. Jiang, and T. Itoh, "Low Profile Diplexing Filter/ Antenna Based on Common Radiating Cavity with Quasi-Elliptic Response," *IEEE AWPL*, accepted.
- M. L. N. Chen, L. J. Jiang, and W. E. I. Sha, "Generation of Orbital Angular Momentum by a Point Defect in Photonic Crystals," *Physical Review Applied*, accepted.
- P. Li, L.J. Jiang, Y.J. Zhang, S. Xu, and H. Bagci, "An Efficient Mode Based Domain Decomposition Hybrid 2D/Q-2D Finite-Element Time-Domain Method for Power/Ground Plate-Pair Analysis," *IEEE Trans. on MTT*, accepted.
- H.Z. Tian, K. Dhvaj, L.J. Jiang, and T. Itoh, "Beam Scanning Realized by Coupled Modes in a Single Patch Antenna," *IEEE AWPL*, vol. 17, no. 6, pp. 1077 – 1080, Jun. 2018. (doi: [10.1109/LAWP.2018.2832605](#)) (**Top 50 most popular paper of May 2018 on IEEE AWPL**)
- P. Li, L.J. Jiang, and H. Bagci, "Discontinuous Galerkin Time-Domain Modeling of Graphene Nano-Ribbon Incorporating the Spatial Dispersion Effects," *IEEE Trans. on Ant. & Propag.*, vol. 66, no. 7, pp. 3590 – 3598, Jul. 2018.
- B. Zhu, X. Y. Z. Xiong, and L. J. Jiang, "A unified analysis framework for tensor metasurfaces," *Journal of Optics*, vol.20, no.8, Jun. 2018.
- K. Dhvaj, J. Kovitz, H.Z. Tian, L.J. Jiang, and T. Itoh, "Half-Mode Cavity Based Planar Filtering Antenna with Controllable Transmission Zeroes," *IEEE AWPL*, vol. 17, no. 5, pp 833-836, May. 2018. (doi: [10.1109/LAWP.2018.2818058](#)) (**Top 50 most popular paper of May 2018 on IEEE AWPL**)
- M.L. Chen, L.J. Jiang, and W.E.I Sha, "Orbital Angular Momentum Generation and Detection by Geometric-phase based Metasurfaces," *Applied Sciences*, vol. 8, iss. 3, pp. 362, Mar. 2018. (doi:[10.3390/app8030362](#)) (**Featured Article by the Editor**)
- Y.W. Qin, X.Y. Xiong, W.E. I. Sha, and L.J. Jiang, "Electrically Tunable Polarizer Based on Graphene-loaded Plasmonic Cross Antenna," *Journal of Physics: Condensed Matter*, vol. 30, no. 14, Apr. 11, 2018. (**Cover Page of JPCM Issue 14**)
- W.D. Mai, P. Li, C.G. Li, M. Jiang, W.Q. Hao, L.J. Jiang, and J. Hu, "A Straightforward Updating Criterion for 2D/3D Hybrid Discontinuous Galerkin Time Domain Method Controlling Comparative Error," *IEEE Trans. on MTT*, vol. 66, no. 4, pp. 1713 ~ 1722, Feb. 2018.
- M.L. Chen, L.J. Jiang, W. Sha, "Detection of Orbital Angular Momentum with Metasurface at Microwave Band," *IEEE AWPL*, vol. 17, iss. 1, pp 110 ~ 113, Jan. 2018. (DOI: [10.1109/LAWP.2017.2777439](#))
- Y.S. Cao, L. Jiang, A. E. Ruehli, J. Fan, and J. Drewniak, "Quantifying EMI: a methodology for determining and quantifying radiating for practical design guidelines," *IEEE Trans. Electromag. Compat.*, vol. 59, No. 5, pp. 1424 ~ 1432, Oct. 2017. (DOI: [10.1109/TEMC.2017.2677199](#))
- X.Fu, J. Li, L. J. Jiang and B. Shanker, "Generalized Debye Sources Based EFIE Solver on Subdivision Surfaces", *IEEE Trans. Antennas Propagat.*, vol. 65, no. 10, pp. 5376 ~ 5386, Oct. 2017. (DOI: [10.1109/TAP.2017.2740976](#))
- X. Y. Z. Xiong, L. J. Jiang, W. E. I. Sha, Y. H. Lo, W. C. Chew, "Sum-frequency and second-harmonic generation from plasmonic nonlinear nanoantennas," *Radio Sci.*, no. 360, pp. 43 ~ 49, Mar. 2017. (Invited Paper)
- P. Li, L. J. Jiang, and H. Bagci, "Discontinuous Galerkin Time-Domain Analysis of Power-Ground Planes Taking into Account Decoupling Capacitors," *IEEE Trans. Components, Packaging, and Manufacturing Technology*, vol. 7, iss. 9, pp. 1476-1485, Sept. 2017. (DOI: [10.1109/TCPMT.2017.2671413](#))
- Y. S. Cao, T. Makharashvili, S. Connor, B. Archambeault, L. J. Jiang, A. E. Ruehli, J. Fan and J. L. Drewniak, "Inductance prelayout extraction for PCB pre-layout power integrity using PMSR method," *IEEE Trans. Electromag. Compat.*, vol. 59, no. 4, pp. 1339-1346, Aug. 2017. (DOI: [10.1109/TEMC.2017.2672726](#)) (**Top 50 most frequently accessed papers in July 2017**)

- P. Li, Y. Dong, M. Tang, J. Mao, L. J. Jiang, and H. Bagci, "Transient thermal analysis of 3-D integrated circuits packages by the DGTD method," *IEEE Trans. Components, Packaging, and Manufacturing Technology*, vol.7, no. 6, pp.862-871, Jun. 2017.
(DOI: [10.1109/TCPMT.2017.2666259](https://doi.org/10.1109/TCPMT.2017.2666259))
- X. Y. Z. Xiong, A. Al-Jarro, L. J. Jiang, N. C. Panoiu, and W. E.I. Sha, "Mixing of spin and orbital angular momenta via second-harmonic generation in plasmonic and dielectric chiral nanostructures," *Phys. Rev. B.*, vol. 95, no. 16, pp. 165432, Apr. 2017.
(DOI: [10.1103/PhysRevB.95.165432](https://doi.org/10.1103/PhysRevB.95.165432))) (**Physical Review B Kaleidoscope**)
- Y. Cao, P. Li, L. J. Jiang, and A. Rueli, "The derived equivalent circuit model for magnetized anisotropic grapheme," *IEEE Trans. Antennas and Propagation*, vol. 65, no. 2, pp. 948-953, Feb. 2017.
(DOI: [10.1109/TAP.2016.2633222](https://doi.org/10.1109/TAP.2016.2633222))
- P. Li, L. J. Jiang, and H. Bagci, "Tansient analysis of dispersive power-ground plate-pairs by DGTD method with wave port excitation," *IEEE Trans. Electromagnetic Compatibility*, vol. 59, no. 1, pp. 172-183, Feb. 2017. (Among the top 20 most frequently accessed papers for that month)
(DOI: [10.1109/TEM.2016.2596978](https://doi.org/10.1109/TEM.2016.2596978)) (**Top 20 most frequently accessed papers of the month**)
- H. H. Zhang, L. J. Jiang, H. M. Yao, Y. Zhang, "Transient Heterogeneous Electromagnetic Simulation with DGTD and Behavioral Macromodel", *IEEE Trans. Electromagn. Compat.*, vol. 59, no. 4, pp. 1152-1160, Jan. 2017.
(DOI: [10.1109/TEM.2016.2642955](https://doi.org/10.1109/TEM.2016.2642955))
- L. L. Meng, X. Y. Z. Xiong, T. Xia, and L. J. Jiang, "The error control of mixed-form fast multipole algorithm based on the high order multipole rotation," *IEEE Antenn. Wireless Propag. Lett.*, vol. 6, pp. 1655-1658, Jan. 2017.
(DOI: [10.1109/LAWP.2017.2660880](https://doi.org/10.1109/LAWP.2017.2660880))
- X. Y. Z. Xiong, L. J. Jiang, J. E. Schutt-Aine, W. C. Chew, "Volterra series based time-domain macromodelingof nonlinear circuits," *IEEE Trans. Compon. Packag. Manuf. Technol.*, vol.7, no. 1, pp. 39-49, Jan. 2017.
(DOI: [10.1109/TCPMT.2016.2627601](https://doi.org/10.1109/TCPMT.2016.2627601))
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(DOI:[10.2528/PIERC16111901](https://doi.org/10.2528/PIERC16111901))
- Z. L. Ma, C.H. Chan, K.B. Ng, L.J. Jiang, "A Collimated Surface-Wave-Excited High-Impedance Surface Leaky-Wave Antenna," *IEEE AWPL*, vol. 16, pp. 2082 – 2085, Apr. 2017.
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- P. Li, Y. Shi, L. J. Jiang, and H. Bagci, "Transient analysis of lumped circuit networks loaded thin wires by DGTD method," *IEEE Trans. Antennas and Propagation*, vol. 64, no. 6, pp. 2358-2369, Mar. 2016
(DOI: [10.1109/TAP.2016.2543803](https://doi.org/10.1109/TAP.2016.2543803))
- P. Li, Y. Shi, L. J. Jiang and H. Bagci, "A DGTD scheme for modeling the radiated emissions from DUTs in shielding enclosures -using near electric field only," *IEEE Trans. Electromagnetic Compatibility*, vol. 58, no. 6, pp. 457-467, Jan. 2016. (Among the top 20 most frequently accessed papers for that month)
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- X. Y. Z. Xiong, L. J. Jiang, W. E. I. Sha, Y. H. Lo, W. C. Chew, and W. C.H. Choy, "Strongly enhanced and directionally tunable second-harmonic radiation in a plasmonic particle-in-cavity nanoantenna," *Phys. Rev. A.*, vol. 94, no. 5, pp. 053825, Nov. 2016.
(DOI: [10.1103/PhysRevA.94.053825](https://doi.org/10.1103/PhysRevA.94.053825)) (**Physical Review A Kaleidoscope**)
- M. L. N. Chen, L. J. Jiang, and W. E. I. Sha, "Ultrathin Complementary Metasurface for Orbital Angular Momentum Generation at Microwave Frequencies," *IEEE Trans. on Ant. & Propag.*, vol. 65, no. 1, pp. 396 – 400, Jan. 2017.
(DOI: [10.1109/TAP.2016.2626722](https://doi.org/10.1109/TAP.2016.2626722)).
- M. L. N. Chen, L. J. Jiang, W. E. I. Sha, W. C. H. Choy, and T. Itoh, "Polarization Control by Using Anisotropic 3-D Chiral Structures," *IEEE Trans. on Ant. & Propag.*, vol. 64, no. 11, pp. 4687 – 4694, Nov. 2016.
(DOI: [10.1109/TAP.2016.2600758](https://doi.org/10.1109/TAP.2016.2600758))
- Z.L. Ma, K.B. Ng, C.H. Chan, and L.J. Jiang, "A Novel Supercell-Based Dielectric Grating Dual-Beam Leaky-Wave Antenna for 60-GHz Applications", *IEEE Trans. on Ant. & Propagat.*, vol. 64, no. 12, pp.

5521-5526, Dec. 2016.

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- Y.S. Cao, L. J. Jiang and A.E. Ruehli, "The Equivalent Circuit Extraction and Application for Arbitrary Shape Graphene Sheet," *ACES Express Journal*, accepted.
- Y. Cao, L.J. Jiang, and A. Ruehli, "An Equivalent Circuit Model for Graphene-based Terahertz Antenna Using the PEEC Method," *IEEE Trans. on Ant. & Propag.*, vol. 64, no. 4, pp. 1385 – 1393, Apr. 2016. (DOI: [10.1109/TAP.2016.2521881](https://doi.org/10.1109/TAP.2016.2521881)).
- X. Fu, L.J. Jiang, and H.T. Ewe, "A Novel Relaxed Hierarchical Equivalent Source Algorithm (RHESA) For Electromagnetic Scattering Analysis of Dielectric Objects," *Journal of Electromagnetic Waves and Applications*, Jul. 21, 2016. (DOI: [10.1080/09205071.2016.1210544](https://doi.org/10.1080/09205071.2016.1210544))
- P. Li, Y.F. Shi, L.J. Jiang, and H. Bagci, "Transient Analysis of Lumped Circuit Networks Loaded Thin Wires by DGTD Method," *IEEE Trans. Ant. & Propag.*, vol. 64, no. 6, pp. 2358-2369, Jun. 2016. (DOI: [10.1109/TAP.2016.2543803](https://doi.org/10.1109/TAP.2016.2543803))
- H. H. Zhang, L.J. Jiang, and H.M. Yao, "Embedding the Behavior Macromodel into TDIE for Transient Field-Circuit Simulations," *IEEE Trans. on Ant. & Propag.*, vol. 64, issue 7, pp. 3233-3238, Sept., 2016. (DOI: [10.1109/TAP.2016.2560901](https://doi.org/10.1109/TAP.2016.2560901))
- P. Li, Y.F. Shi, L.J. Jiang, and H. Bagci, "A DGTD Scheme for Modeling the Radiated Emission from DUTs in Shielding Enclosures Using Near Electric Field Only," *IEEE Trans. on Electromagnetic Compatibility*, vol. 58, no. 2, pp.. 457-467, Apr. 2015. (**Top 20 Most Popular Paper of the Month by Sept. 2016**) (DOI: [10.1109/TEM.2016.2515363](https://doi.org/10.1109/TEM.2016.2515363))
- X. Y. Xiong, L.J. Jiang, W. Sha, Y.H. Lo, and W.C. Chew, "Compact Nonlinear Yagi-Uda Nanoantennas," *Scientific Report*, Jan. 2016. (DOI: [10.1038/srep18872](https://doi.org/10.1038/srep18872)).
- M. L. Chen, L.J. Jiang, and W. Sha, "Artificial PEC-PMC Anisotropic Metasurface for Generating Orbital Angular Momentum of Microwave with Nearly Perfect Conversion Efficiency," *Journal of Applied Physics*, 119, 064506 (2016). (DOI: [10.1063/1.4941696](https://doi.org/10.1063/1.4941696)).
- X. Fu, L.J. Jiang, Z.H. Ma, and S.Q. He, "Performance enhancement of equivalence principle algorithm," *IEEE Ant. and Wireless Propag. Lett.*, vol. 15, pp 480-483, Feb. 2016. (DOI: [10.1109/LAWP.2015.2453940](https://doi.org/10.1109/LAWP.2015.2453940))
- P. Li, Y.F. Shi, H. Bagci, and L.J. Jiang, "DGTD Analysis of Electromagnetic Scattering from Penetrable Conductive Objects With IBC," *IEEE Trans. on Ant. & Propag.*, vol. 63, no. 12, pp. 5686-5697, Dec. 2015. (DOI: [10.1109/TAP.2015.2491969](https://doi.org/10.1109/TAP.2015.2491969))
- P. Li and L.J. Jiang, "Modeling Of Magnetized Grapheme From Microwave to Thz Range by DGTD with a Scalar RBC and an ADE," *IEEE Trans. on Ant. & Propag.*, vol. 63, no. 10, pp. 4458-4467, Oct. 2015. (DOI: [10.1109/TAP.2015.2456977](https://doi.org/10.1109/TAP.2015.2456977))
- Y.P. Chen, W. Sha, L.J. Jiang, and Jun Hu, "Graphene Plasmonics For Tuning Photon Decay Rate Near Metallic Split-Ring Resonator In A Multilayered Substrate," *Optical Express*, vol. 23, no. 3, pp. 2798-2807, Feb. 2015. (DOI: [10.1364/OE.23.002798](https://doi.org/10.1364/OE.23.002798)).
- P. Li and L.J. Jiang, "Uncertainty Quantification for Electromagnetic Systems Using Adaptive Hierarchical Sparse Grid Collocation and DGTD Method," *IEEE Trans. on Electromagnetic Compatibility*, vol. 57, no. 4, pp. 754-763, Aug. 2015. (DOI: [10.1109/TEM.2015.2403304](https://doi.org/10.1109/TEM.2015.2403304))
- Y. Cao, L.J. Jiang, and A. Ruehli, "Distributive Radiation and Transfer Characterization Based on the PEEC Method," *IEEE Trans. on Electromagnetic Compatibility*, vol. 57, no. 4, pp. 734-742, Aug. 2015. (DOI: [10.1109/TEM.2014.2382176](https://doi.org/10.1109/TEM.2014.2382176))
- Z.L. Ma, L.J. Jiang, S. Gupta, and W. Sha, "Dispersion Characteristics Analysis of One Dimensional Multiple Periodic Structures and Their Applications to Antennas," *IEEE Trans. on Ant. & Propag.*, vol 63, no. 1, pp. 113-121, Dec. 2014. (DOI: [10.1109/TAP.2014.2366785](https://doi.org/10.1109/TAP.2014.2366785))
- P. Li, L.J. Jiang, and H. Bagci, "A Resistive Boundary Condition Enhanced DGTD Scheme for the Transient Analysis of Graphene," *IEEE Trans. on Ant. & Propag.*, vol. 63, no. 7, pp. 3065-3076, Jul. 2015.

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- S. Gupta, Q.F. Zhang, L.F. Zou, L.J. Jiang, and C. Caloz, "Generalized Coupled-Line All-Pass Phasers," *IEEE Trans. on Microw. Theory & Tech.*, vol. 63, no. 3, pp. 1007-1018, Mar. 2015.
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- Z.L. Ma and L.J. Jiang, "One Dimensional Triple Periodic Dual-Beam Microstrip Leaky-wave Antenna," *IEEE Ant. and Wireless Propag. Lett.*, vol. 14, pp. 390-393, Feb. 2015.
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- S. Gupta, L.J. Jiang, and C. Caloz, "Magnetolectric Dipole Antenna Arrays," *IEEE Trans. on Ant. & Propag.*, vol. 62, no. 7, pp. 3613-3622, Jul. 2014. (**Top 25 Most Frequently Downloaded Papers of the Month**)
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- P. Li, Y.F. Shi, L.J. Jiang, H. Bagci, "A Hybrid Time-Domain Discontinuous Galerkin-Boundary Integral Method for Electromagnetic Scattering Analysis," *IEEE Trans. on Ant. & Propag.*, vol. 62, no. 5, May 2014.
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Selected Conference Papers

- M. L. N. Chen and L. J. Jiang, "Orbital Angular Momentum Generation Using Composite Quasi-Continuous Metasurfaces with a Perfect Efficiency," *Progress in Electromagnetics Research Symposium*, Toyama, Japan, Aug. 2018. (**Best Student Paper Award 3rd Prize**)
- P. Li, L.J. Jiang, and H. Bagci, "Numerical modeling of graphene nano-ribbon by DGTD taking into account spatial dispersion effect," *2018 Progress in Electromagnetics Research Symp.*, Aug. 1-4, Toyama, Japan 2018. (**Young Scientist Award**)

- M. Li and L.J. Jiang, "Decoupling of Multi-element MIMO Antenna," *2018 CSQRWC*, Jul. 21-24, Xuzhou, China. (**Outstanding Student Paper Award**)
- H. M. Yao, L. J. Jiang and Y.W. Qin, "Machine Learning Based Method of Moments (ML-MoM)," *IEEE International Symposium on APS/URSI*, San Diego, USA, Jul. 2017. (Highly Interested Paper)
- Y.S. Cao, X. Wang, W. Mai, Y. Wang, L. Jiang, A. Ruehli, S. He, H. Zhao, J. Hu, J. Fan, and J. Drewniak, "Characterizing EMI radiation physics for edge and broad-side coupled connectors," *IEEE Int. Symposium on Electromagnetic Compatibility*, Washington DC, USA, Aug. 2017.
- Q.S. Liu, S. Sun, Q. I. Dai, W. C. Chew and L. J. Jiang, "Physical Insight of the Characteristic Modes and Longitudinal Vector Potential Analysis in Potential-Based Integral Equation," in *Int. Union of Radio Sci. General Assembly & Scientific Symp. (URSI-GASS)*, invited, Aug. 2017.
- Q.S. Liu, S. Sun, L. J. Jiang and W. C. Chew, "Physical and spectral properties of the electrostatic nullspace in the augmented integral formulations," in *IEEE Int. Symp. on Antennas and Propag.*, Jul. 2017.
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- X. Y. Z. Xiong, L. J. Jiang and W. E. I. Sha, "Surface waves extraction and their effect on effective material parameters of metamaterials," *IEEE International Conference on Computational Electromagnetics (ICCEM)*, Kumamoto Japan, Mar. 2017.
- M. L. N. Chen, L. J. Jiang, and W. E. I. Sha, "Novel Complementary Metasurfaces for the Orbital Angular Momentum Generation," *2017 International Applied Computational Electromagnetics Society (ACES) Symposium*, Firenze, Italy, Mar. 2017. (**3rd Place of Best Student Paper**)
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- M. L. N. Chen, L. J. Jiang, W. E. I. Sha, and T. Itoh "A Highly Tunable Sub-Wavelength Chiral Structure for Circular Polarizer," *IEEE International Symposium on APS/USNC-URSI*, Fajardo, Puerto Rico, Jun. 2016.
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- Y. S. Cao, L.J. Jiang and A. E. Ruehli, "The Equivalent Circuit Model for Non-Magnetized and Magnetized Graphene," *IEEE International Conference on ICWITS-ACES*, Honolulu, HI, USA, Mar. 2016. (**Fifth Place Best Student Paper Award**).
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- X. Fu, L.J. Jiang, and H.T. Ewe, "Hierarchical Equivalent Source Algorithm Based on Relaxed Spherical Equivalence Surface," *IEEE International Symposium on APS/USNC-URSI*, Vancouver, Canada, Jul. 2015. (**Honorable Mention of the Student Paper Competition**)
- Y. Cao, L.J. Jiang, and A. Ruehli, "Radiation Analysis of Graphene-based Nano-patch Antenna by the PEEC Method," *IEEE International Symposium on APS/USNC-URSI*, Vancouver, Canada, Jul. 2015.
- K. Dhawaj, H.S. Lee, L.J. Jiang, and T. Itoh, "Transmission-line Equivalent and Microstrip Structure for Planar Möbius Loop Resonator," *IEEE IMS*, Jun. 2015.
- X.Y. Xiong, L.J. Jiang, J. Shutt-Aine, and W.C. Chew, "Blackbox Macro-modeling of the Nonlinearity Based on Volterra Series Representation of X-Parameters," *IEEE EPEP*, Portland, Oregon, Oct. 2014. (**The Best Oral Paper Award**)
- Z.L. Ma, L.J. Jiang, S. Gupta, and W. Sha, "The Multiple Periodic Structure Antenna Design," 2014 PIERS, Guangzhou, Aug. 2014. (**2nd Place of Best Student Paper Award in Antennas and Microwave Engineering**)
- P. Li and L.J. Jiang, "Uncertainty Quantification of EM-Circuit Systems Using Stochastic Polynomial Chaos Method," *IEEE Symposium on EMC*, Raleigh, NC, USA, Aug. 2014. (**Finalist of Best Student Paper in EMC**)
- Y. S. Cao, L.J. Jiang, and A. E. Ruehli, "Distributive Radiation Characterization Based on the PEEC Method," *IEEE Symposium on EMC*, Raleigh, NC, USA, Aug. 2014. (invited)
- P. Li, Y.F. Shi, L.J. Jiang, and H. Bagci, "A Discontinuous Galerkin Time Domain-Boundary Integral Method for Analyzing Transient Electromagnetic Scattering," *IEEE International Symposium on APS/USNC-URSI*, Memphis, TN, USA, Jul. 2014.
- Y. P. Chen, L.J. Jiang, S. Sun, and W.C. Chew, "Calderon Preconditioned PMCHWT Equation for Layered Medium Problems," *IEEE International Symposium on APS/USNC-URSI*, Memphis, TN, USA, Jul. 2014.
- X. Y. Xiong, L.J. Jiang, Y. H. Lo, and W.C. Chew, "Second-harmonic Generation in Metal Nanoparticles Modeling by Surface Integral Equation," *IEEE International Symposium on APS/USNC-URSI*, Memphis, TN, USA, Jul. 2014. (invited)
- X.Y. Z. Xiong, L.L. Meng, L.J. Jiang, and W. Sha, "A new efficient method for analysis of finite periodic structures," *International Review of Progress in Applied Computational Electromagnetics (ACES)*, Jacksonville, FL, Mar. 2014. (**Best Student Paper Award**)
- P. Li and L.J. Jiang, "An Adaptive Hierarchical Sparse Grid Collocation Method for Stochastic Characterization of Electromagnetics/Circuit Systems," *the 12th International Workshop on Finite Elements for Microwave Engineering*, Chengdu, China, May. 2014. (**Student Paper Award**)
- J. Z. Huang, L.J. Jiang, W.C. Chew, J. Peng, C.Y. Yam, and G.H. Chen, "Model Order Reduction for Quantum Transport Simulation of Nanoelectronic Devices," the 14th IEEE HK AP/MTT Postgraduate Conference, Hong Kong, Oct. 2013 (**Second Place of Best Student Paper in MTT Session**).
- X.Y. Z. Xiong, L.J. Jiang, V. A. Markel, and I. Tsukerman, "Surface Effects on Position-Dependent Parameters of Periodic Electromagnetic Composites," the 14th IEEE HK AP/MTT Postgraduate Conference, Hong Kong, Oct. 2013 (**First Place of Best Student Paper in AP Session**).
- S. Gupta, L.J. Jiang, and C. Caloz, "Magneto-electric dipole antenna based on differentially-excited composite right/left-handed (CRLH) transmission lines," *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Torino, Italy, Sept. 2013.
- S. Gupta, L.J. Jiang, and C. Caloz, "Enhanced-resolution folded C-section phaser," *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Torino, Italy, Sept. 2013.
- P. Li, L.J. Jiang, J. Hu, and S. Sun, "A novel broadband equivalent source reconstruction method for broadband radiators," *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Torino, Italy, Sept. 2013.
- A. Ruehli, G. Antonini, and L.J. Jiang, "Passivation of EM PEEC solution in the time and frequency domain," *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Torino, Italy, Sept. 2013.

- Xiaoyan Xiong, Li Jun Jiang, and Wei Sha, "Solution of the Low Frequency EM problems through a novel Coulomb gauge EFIE," 2013 ACES, Monterey, CA, Apr. 2013. (**Best student paper candidate**)
- P. Li and L. J. Jiang, "A Field-Circuit Solver Hybridizing Discontinuous Galerkin Finite Element Time Domain Method and Modified Nodal Analysis," 2013 ACES, Monterey, CA, Apr. 2013. (**Best student paper candidate**)
- Q. Chen, W. Schoenmaker, S.H. Weng, C.K. Cheng, L.J. Jiang, G.H. Chen, and N. Wong, "A Fast Time-Domain EM-TCAD Coupled Simulation Framework via Matrix Exponential," 2012 ICCAD, San Jose, CA, Nov. 2012. (**Best paper award finalist candidate**)
- P. Li and L.J. Jiang, "The far field transformation using the iterative source reconstruction method based on the phaseless data," IEEE International Symposium on APSURSI, Chicago, IL, Jul. 2012.
- Y. M. Wu, L.J. Jiang, and W.C. Chew, "An efficient method for highly oscillatory physical optics integrals," IEEE International Symposium on APSURSI, Chicago, IL, Jul. 2012.
- X.Y.Z Xiong, W.E. Sha, and L.J. Jiang, "Characterization of wave physics using the rigorous Helmholtz decomposition based on the surface integral equation," IEEE International Symposium on APSURSI, Chicago, IL, Jul. 2012.
- Y. P. Chen, W.C. Chew, W.E. Sha, W.C. Choy, and L.J. Jiang, "Integral equation method for analyzing purcell effect in plasmonic system," IEEE International Symposium on APSURSI, Chicago, IL, Jul. 2012.
- W. J. Yu, Q. Chen, L.J. Jiang, and N. Wong, "Efficient variation-aware EM-semiconductor coupled solver for the TSV structures in 3D IC," Design, Automation & Test in Europe Conference & Exhibition, Mar. 2012.
- S.Q. He, J. Hu, Z.P. Nie, L.J. Jiang, and W. C. Chew, "Multi-solver-based Generalized Impedance Boundary Condition for Complicated EM Simulation," 11th International Workshop on Finite Elements for Microwave Engineering — FEM2012, Estes Park, Colorado, USA, Jun 4-6, 2012.
- X. Sun, G. Chan, C. Sum, W. Lee, L.J. Jiang, and P. Pong, "Operation State Identification for Underground Power Cables by Magnetoresistive Sensors," Intermag 2012, Vancouver, May 7-11, 2012.
- Z.H. Ma, W.C. Chew, and L.J. Jiang, "A novel fast solver for Poisson equation," 2012 ACES, Columbus, OH, Apr. 2012.
- Y. Li, S. Sun, L.J. Jiang, P. Yang and S.Q. He, "Back radiation reduction of the folded shorted-patch antenna using finite ground strips with resistive loads," 2012 ACES, Columbus, OH, Apr. 2012.
- J.Z. Huang, W.C. Chew, M. Tang, L.J. Jiang, and W.Y. Yin, "Fast three-dimensional simulation of silicon nanowire transistors with asymptotic waveform evaluation," 2012 ACES, Columbus, OH, Apr. 2012.
- Y.M. WU, L.J. Jiang, and W.C. Chew, "An Efficient Method for Computing Highly Oscillatory Physical Optics Integral," PIERS, Kuala Lumpur, Malaysia, Mar. 27-30, 2012.
- N. Huang and L.J. Jiang, "Simulations of Pulse Signals with X-Parameters," IEEE EPEP, San Jose, CA, Oct. 23-26, 2011.
- G. Antonini, A. Ruehli, L.J. Jiang, "Mixed Integral-Differential Skin-Effect Models for PEEC Electromagnetic Solver," IEEE EPEP, San Jose, CA, Oct. 23-26, 2011.
- P. Li and L.J. Jiang, "A Novel Characterization Method of the Radiation Emission for Electromagnetic Compatibility," 2011 IEEE EMC Symposium, Long Beach, CA, Aug. 2011. (Invited Talk)
- Qi Dai, Weng Cho Chew, Yang G. Liu, Bo Zhu, and Lijun Jiang, "Generalized Modal Expansion of Electromagnetic Fields in Unbounded Media," 2011 PIERS, Suzhou, China, Sept. 12-16, 2011.
- Y. P. Chen, W. C. Chew, and L. J. Jiang, "A Matrix Representation of Dyadic Green's Function for Modeling General Dielectric Objects Embedded in a Layered Medium," 2011 PIERS, Suzhou, China, Sept. 12-16, 2011.
- Y. P. Chen, L.J. Jiang, Z.G. Qian, and W. C. Chew, "Modeling Electrically Small Structures in Layered Medium with Augmented EFIE Method," 2011 IEEE AP-S Symposium, Spokane, Washington, USA, Jul. 2011.
- Y. P. Chen, W. C. Chew, and L.J. Jiang, "A New Closed-Form Evaluation of Layered Medium Green's Function," 2011 IEEE AP-S Symposium, Spokane, Washington, USA, Jul. 2011.
- A.T. deHoop and L. J. Jiang, "Reflection and Transmission of Line-Source Excited Pulsed EM Fields at A Thin, High-Contrast Layer With Dielectric and Conductive Properties," 2011 IEEE AP-S Symposium, Spokane, Washington, USA, Jul. 2011.

- Yat Hei Lo, Shiquan He, Lijun Jiang, and Weng Cho Chew, "Finite-Width Gap Excitation and Impedance Models," 2011 IEEE AP-S Symposium, Spokane, Washington, USA, Jul. 2011.
- Shiquan He, Zaiping Nie, Jun Huang, Lijun Jiang, and Weng Cho Chew, "Finite Element Based Generalized Impedance Boundary Condition for Complicated EM Calculation," 2011 IEEE AP-S Symposium, Spokane, Washington, USA, Jul. 2011.
- L.J. Jiang and W.C. Chew, "Review Of Low Frequency Computational Electromagnetics," 2011 ICMTCE, Beijing, China, May 2011. (Keynote Speech)
- L.J. Jiang, "Computational Electromagnetics for Integrated Circuits," 2011 International Workshop on Electromagnetic Theory, Modeling, and Simulation, Chengdu, China, Jun. 2011. (Keynote Speech)
- S.Q. He, P. H. Yang, L.J. Jiang, W.C. Chew, and Z.P. Nie, "Generalized Impedance Boundary Conditions Based on the Finite Element Method and Its Applications to Aid RFID Antenna Design," 2011 27th ACES, Williamsburg, VA, Mar. 2011. (Invited)
- Y.Z. Xu, Q. Chen, L.J. Jiang, and N. Wong, "Process-variation-aware Electromagnetic-semiconductor Coupled Simulation," 2011 IEEE International Symposium on Circuits and Systems (ISCAS), pp 2853 – 2856, Brazil, May 2011.
- Z.H. Ma, L.J. Jiang, W.C. Chew, M.K. Li and Z.G. Qian, "Augmented EPA with Augmented EFIE Method for Packaging Analysis," 2010 IEEE EDAPS, pp 1~4, Singapore, Dec. 2010.
- Y.G. Liu, W.C. Weng, L.J. Jiang, "A Memory Saving Vector Fast Multipole Algorithm For Solving The Augmented EFIE," 2010 EMTS, pp 134 – 137, Berlin, Aug. 2010.
- A.T. deHoop and L.J. Jiang, "Time-Domain Field Responses of the Thin, High-Contrast, Finely Layered Structure In IC Packaging," 2010 IEEE 19th Conference on EPEP, Austin, TX, Oct. 2010.
- Z.H. Ma, L.J. Jiang, Z.G. Qian, M.K. Li and W.C. Chew, "Solving Low Frequency Electromagnetic Problems With EPA And A-EFIE," 2010 AP-RASC, Toyama, Japan, Sept. 2010.
- L.J. Jiang and A. Ruehli, "On The Frequency Barrier of Surface Integral Equations from a Circuit Point of View," 2010 Progress In Electromagnetics Research Symposium, Boston, MA, Jul. 2010.
- L.J. Jiang, C. Xu, H. Smith, B. J. Rubin, A. Deutsch and A. Caron, "Electrical Modeling of Temperature Distributions in On-chip Interconnects, Packaging, and 3D Integration," 2010 AP-EMC, Beijing, China, Apr. 2010.
- Z.G. Qian, M.K. Li, Z.H. Ma, L.J. Jiang and W.C. Chew, "Solving Multiscale Low Frequency Electromagnetic Problems", the 4th European Conference on Antennas and Propagation, Barcelona, Spain, Apr. 2010.
- C. Xu, L.J. Jiang, S.K. Kolluri, B. Rubin, A. Deutsch, H. Smith, and K. Banerjee, "Fast 3-D Thermal Analysis of Complex Interconnect Structures Using Electrical Modeling and Simulation Methodologies," IEEE/ACM ICCAD, pp 658 ~ 665, San Jose, CA, Nov. 2009.
- J. Walkil, E. Colgan, L.J. Jiang, S. Chen, and K. Sikka, "BEOL Thermal Characterization for 3-D Packaging," 41st International symposium on Microelectronics, Providence, RI, Nov. 2008.
- J.Y. Xie, D. Chung, M. Swaminathan, M. Mcallister, A. Deutsch, L.J. Jiang, B.J. Rubin, "Electrical-thermal Co-analysis for Power Delivery Networks in 3D System Integration," IEEE International Conference on 3D System Integration, pp 1 ~ 4, San Francisco, CA, Sept. 2009.
- L.J. Jiang, S. Kolluri, B. Rubin, H. Smith, E. Colgan, etc., "Thermal Modeling of On-chip Interconnects and 3D Packaging Using EM Tools," 2008 IEEE 17th Topical Meeting on Electrical Performance of Electronic Packaging, San Jose, CA, Oct. 2008.
- L.J. Jiang, S. Kolluri, B. Rubin, H. Smith, A. Deutsch, etc, "On-chip Electro-Thermal Analysis Using Electromagnetic Modeling Tools," 2008 Progress in Electromagnetics Research Symposium, Cambridge, MA, Jul. 2008.
- H.Ch. Chen, L.J. Jiang, A. Deutsch, M. Angyal, and T. Spooner, "Interconnect Performance and Scaling Strategy for the 22nm Node and Beyond," 2008 International Interconnect Technology Conference (IITC), Burlingame, CA, Jun 2008.
- L.J. Jiang, B. Rubin, Y. Liu, J.D Morsey, and A. Deutsch, "Electromagnetic Simulation for Inhomogeneous Interconnect and Packaging Structures," IEEE 16th Topical Meeting on Electrical Performance of Electronic Packaging, Atlanta, GA, Oct. 2007.
- L.J. Jiang, J.D. Morsey, B. Rubin, and A. Deutsch, "Parallel Computational Electromagnetic Method, PCEM, for IC Interconnect and Packaging Analysis," Progress in Electromagnetics Research Symposium, Beijing, China, Mar. 2007. (Invited Talk)

- L.J. Jiang, B. Rubin, and J.D. Morsey, "Novel Capacitance Extraction Method Using Direct Boundary Integral Equation Method and Hierarchical Approach," IEEE 15th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP), Scarsdale, AZ, 2006.
- M.K. Li, W.C. Chew and L.J. Jiang, "A Domain Decomposition Scheme to Solve Integral Equations Using Equivalent Surfaces," IEEE Antennas and Propagation Society International Symposium and URSI, CA 2006.
- L.J. Jiang and W.C. Chew, "The Mixed-Form Fast Multipole Algorithm for Broadband Electromagnetic Simulations," IEEE Antennas and Propagation Society International Symposium and URSI, Washington, DC, 2005.
- W.C. Chew and L.J. Jiang, "The General Variational Formulas for Capacitance Parameter Extraction," IEEE 14th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP), Austin, TX, 2005.
- J. Morsey, A. Deutsch, J.P. Libous, C. Surovic, B. J. Rubin, L.J. Jiang, and L. Eisenberg, "The Use of Accelerated Full-Wave Modeling to Analyze Power Island Coupling in a HyperBGA SCM," IEEE 14th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP), Austin, TX, 2005.
- Z.G. Qian, J. Xiong, L. Sun, I.T. Chiang, W.C. Chew, L.J. Jiang, and Y.H. Chu, "Crosstalk Analysis by Fast Computational Algorithms," IEEE 14th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP), Austin, TX, 2005.
- W.C. Chew, L.J. Jiang, Y.H. Chu, Y.A. Liu, M.K. Li, Z.G. Qian, J. Xiong and L. Sun, "Solving Low Frequency Electromagnetic Problems with Fast Solvers," IEEE International Symposium on Electromagnetic Compatibility, Chicago, IL, 2005.
- W.C. Chew, L.J. Jiang, and Y.H. Chu, "Computational Electromagnetics at Very Low Frequencies," PIERS, Nanjing, China, 2004.
- W.C. Chew, Y.H. Chu, L.J. Jiang, I.T. Chiang, Y.C. Pan, and J.S. Zhao, "Mixing Electromagnetic and Electrical Circuit Simulations," IEEE Antennas and Propagation Society International Symposium and URSI, Monterey, CA, 2004.
- W.C. Chew, L. J. Jiang, Y. H. Chu, M. L. Hastriter, S. Velamparambil, "Recent Advances in Computational Electromagnetics: from the Very Low Frequency to Ultra Large Scale Problems," Proceedings of the 2004 URSI EMT-S, vol. II, p.736-738, Pisa, Italy, May 23-27, 2004.
- L.J. Jiang and W.C. Chew, "Fast Multipole Algorithm Frame Analysis", IEEE Antennas and Propagation Society International Symposium and URSI, Columbus, OH, 2003.
- L.J. Jiang and W.C. Chew, "Broad-band Computational Electromagnetics Algorithm-MFIPWA", the 19th Review of Progress in Applied Computational Electromagnetics, Monterey, CA, 2003.
- L.J. Jiang and W.C. Chew, "Modified Fast Inhomogeneous Plane Wave Algorithm from Low Frequency to Microwave Frequency", IEEE AP Society International Symposium, Columbus, OH, 2003.
- W.C. Chew and L.J. Jiang, "A Hybrid Fast Capacitance Solver", IEEE Antennas and Propagation Society International Symposium and URSI, Columbus, OH, 2003.
- W.C. Chew, L.J. Jiang, Y.H. Chu, and G.L. Wang, and Y. Pan, "Toward a More Robust and Accurate Fast Integral Equation Solver for Microstrip Applications", 12th Topical Meeting on Electrical Performance of Electronic Packaging, Princeton, NJ, 2003.
- L.J. Jiang, W.C. Chew and Y.C. Pan, "DCIM-Accelerated SMFMA for Capacitance Extraction", IEEE Antennas and Propagation Society International Symposium and URSI, Columbus, OH, 2003.
- L.J. Jiang and W.C. Chew, "A New Plane-Wave Representation of 3D Point Sources", IEEE Antennas and Propagation Society International Symposium, San Antonio, TX, 2002.
- W.C. Chew and L.J. Jiang, "A Fast Evanescent-Wave Algorithm", IEEE Antennas and Propagation Society International Symposium, Boston, MA, 2001.

Books

- A. Ruehli, G. Antonini, and L.J. Jiang, *Circuit Oriented Electromagnetic Modeling Using the PEEC Techniques*, Wiley, ISBN: 978-1-118-43664-6, Jun. 2017.
- W.C. Chew, L.J. Jiang, S. Sun, W.E.I. Sha, Q.I. Dai, M. Fallahpour, and Y.M. Wu, *Handbook of Antenna Technologies*, Chapter 10: Numerical Modeling in Antenna Engineering, Springer Publications, 2016. (DOI: 10.1007/978-981-4560-75-7_6-1))

Patents

- D. Qi, W.C. Chew, L.J. Jiang, and B. Zhu, *Compact Electronic Mode Stirred Chamber*, US 8,693,158B2, filed on Jan 18th, 2012, approved on Apr. 8th, 2014. Korean Patent 10-2013-7018972.
- L.J. Jiang, J. D. Morsey, B. J. Rubin, W.C. Chew, M. K. Li, and Y. Liu, *Huygens' Box Methodology for Signal Integrity Analysis*, US7707527 B2, Date of Patent: Apr. 27, 2010.
- L.J. Jiang and J.D. Morsey, *Double-layer Integral Using Static Green's Function and Rectangular Basis*, US 7844418, Pub Date: Jun 4th, 2009, Issue Date: Nov. 30, 2010.
- L.J. Jiang, H. Smith, A. Deutsch, K. Chanda, B.J. Rubin, J. Gill, and S.K. Kolluri, *Methodology for Thermal Modeling of On-chip Interconnects Based on Electromagnetic Simulation Tools*, US 2009/0164183 A1, Pub. Date: Jun. 25, 2009.

Teaching Record (at HKU)

ELEC2816/3846 *Numerical Methods and Optimization*. 6 Credits, Spring, 2014, 2015. (Shared with Dr. P. Pong. Taught the Optimization part.)

ELEC2818 *Integrated Project*. Spring, 2014. (Shared with Dr. C.K. Lee. Taught FPGA Technology.)

Organizer and one of the four instructors of "2012 Mainland-HK Graduate Summer School" on electromagnetics and computational physics, sponsored by HKU AOE, UESTC 111 Plan, IEEE MTT/AP HK Local Chapter, and IEEE Chengdu Section (<http://yangtze.hku.hk/CN HKSS2012/index.php>).

ELEC 8701 *Advanced Electromagnetic Waves and Fields*, new graduate course, 2013. Teaching evaluation score: significantly above the average.

ELEC 1202 *Introduction to Electromagnetic Waves and Fields*, 6 Credits, 2012 Spring. Teaching evaluation score: significantly above the average.

ELEC 3221 *Microwave Engineering*. 6 credits. 2011, 2012. Teaching evaluation score: significantly above the average.

ELEC 1201 *Fundamentals of Electromagnetics*. 3 Credits. 2011 Spring. Teaching evaluation score: several points below the average.

ELEC 1807 *Discrete Mathematics*. 3 credits. 2011 Spring. Teaching evaluation score: above the average.

ELEC 6031 *Numerical Methods for Computer Applications*. 3 Credits. 2010 Fall. Teaching evaluation score: significantly above the average.

Voluntary Lecture Series (For Graduate Students): *Advanced Electromagnetics*. 8 lectures, 20 hours. 2010 Spring.

Funding Record (As the Principle Investigator)

(External Fundings)

- Contract Project from Universiti Tunku Abdul Rahman funded by US AOARD Project 2017-2019
- Contract Project: 2018
- GRF: 2016~2017
- ITC: 2014~2016
- M300667-S2-2015
- Contract Project: 2014-2015
- GRF: 2013~2014
- NSFC: 2013-2016
- SZSTI NSFC Matching Fund (2014-2015)
- Contract Project from Universiti Tunku Abdul Rahman funded by US AOARD Project 2013-2015
- Contract Project: 2013-2014
- GRF: 2012~2013
- ITC: 2012~2013
- Contract Project: 2012-2013
- NWO/HKRGJ Joint Research Scheme: 2013

(Internal Fundings)

- Seed Fund for Basic Research: 2018~2019
- Small Funding for Applied Research: 2014-2015
- Small Project Funding: 2012, 2011, 2010
- Seed Funding for Applied Research: 2012, 2011
- Engineering Overseas Visitor Program Fellowship: 2011
- HKUSPACE: 2011-2014

(Special Funding as one of PIs)

- AOE: 2010-2018

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