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# Lin Li

## Basic Information

AFFILIATION: State Key Laboratory of Precision Spectroscopy,  
East China Normal University, Shanghai, China  
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## Education

- 2014 Ph. D. in Physics, Nanjing University  
Advisor: Tao Li, Shining Zhu  
Thesis: Research on modulation of near field propagation and far field radiation of surface plasmon polariton. (**Springer Theses Award**)
- 2005 B. S. in Electronic science and technology, Wuhan University

## Employment

Nov. 2019 to present	Research Professor State Key Laboratory of Precision Spectroscopy, East China Normal University
Oct. 2018 to Oct. 2019	Postdoctoral Research Fellow Research Center for Applied Sciences, Academia Sinica /Hongkong Polytechnic University
Nov. 2016 to Sep. 2018	Postdoctoral Research Fellow Northeastern University (USA)
Nov. 2014 to Oct. 2016	Postdoctoral Research Fellow University of California, Berkeley

## Publications

### Selected publications

1. **L. Li\***, Z. X. Liu\*, X. F. Ren\*, S. M. Wang\*, V. C. Su, M. K. Chen, C. H. Chu, H. Y. Kuo, B. H. Liu, W. B. Zang, G. C. Guo, L. J. Zhang, Z. L. Wang, S. N. Zhu, and D. P. Tsai, “Metalens-array-based high-dimensional and multi-photon quantum source”, **Science**, 368,1487-1490 (2020), (\***contributed equally**)
2. **L. Li**, K. Yao, Z. J. Wang, and Y. M. Liu “Harnessing Evanescent Waves by Bianisotropic Metasurfaces”, **Laser & Photonics Reviews**, 14, 1900244 (2020).
3. R. Zhao\*, **L. Li\***, S. Yang\*, W. Bao\*, Y. Xia, P. Ashby, Y. Wang, and X. Zhang, “Stable

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- Casimir Equilibria and Quantum Trapping”, **Science**, 364, 984-987 (2019) (\***contributed equally**)
4. **L. Li**, “Manipulation of Near field Propagation and Far Field Radiation of Surface Plasmon Polariton”, **Springer Theses**, 2017
  5. **L. Li**, T. Li, X. M. Tang, S. M. Wang, Q. J. Wang, S. N. Zhu, “Plasmonic polarization generator in well-routed beaming”, **Light: Science & Applications**, 4, e330 (2015)
  6. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “Collimated Plasmon Beam: Nondiffracting versus Linearly Focused”, **Phys. Rev. Lett.** 110, 046807 (2013)
  7. **L. Li**, T. Li, S. M. Wang, C. Zhang, and S. N. Zhu, “Plasmonic Airy Beam Generated by In-Plane Diffraction”, **Phys. Rev. Lett.** 107, 126804 (2011)
  8. **L. Li**, T. Li, S. M. Wang, S. N. Zhu, X. Zhang, “Broad band focusing and demultiplexing of in-plane propagating surface plasmons”. **Nano Lett.** 11, 4357 (2011)

### **Other publications**

9. B. Xiong, Y. H. Xu, J. N. Wang, **L. Li**, L. Deng, F. Cheng, R. W. Peng, M. Wang, Y. M. Liu, “Realizing Colorful Holographic Mimicry by Metasurfaces” , **Advanced Materials**, 33, 2005864 (2021)
10. R. Xie, D. Zhang, X. Wang, S. An, B. Zheng, H. Zhang, G. Zhai, **L. Li**<sup>†</sup>, J. Ding<sup>†</sup>, “Multi-Channel High-efficiency Metasurfaces Based on Tri-band Single-cell Meta-atoms with Independent Complex-amplitude Modulations”, **Advanced Photonics Research**, adpr.202100088 (2021).
11. **李林**、程亚、祝世宁, “浅谈超构表面在量子光学中的应用”, 《物理》, 50, 308 (2021)
12. F. Cheng, Z. Du, X. Wang, Z. Cai, **L. Li**, C. Wang, A. Benabbas, P. Champion, N. Sun, L. Pan, Y. Liu, “All-Optical Helicity-Dependent Switching in Hybrid Metal–Ferromagnet Thin Films” , **Advanced Optical Materials**, 2000379 (2020)
13. Z. Su, F. Cheng, **L. Li**, Y. M. Liu, “Complete Control of Smith-Purcell Radiation by Graphene Metasurfaces”, **ACS Photonics**, 6, 1947-1954, (2019).
14. R. C. Jin, J. Q. Li, **L. Li**, Z. G. Dong, Y. M. Liu, “Dual-mode subwavelength trapping by a plasmonic tweezer based on V-type nanoantennas”, **Opt. Lett.** 44, 319 (2019)
15. H. Su, X. P. Shen, G. X. Su, **Lin Li**, J. P. Ding, F. X. Liu, P. Zhan, Y. M. Liu, Z. L. Wang, “Efficient Generation of Microwave Plasmonic Vortices via a Single Deep - Subwavelength Meta - Particle”, **Laser & Photonics reviews**, 1800010 (2018).
16. Z. Huang, K. Yao, G. X. Su, W. Ma, **L. Li**, Y. M. Liu, P. Zhan, Z. L. Wang, “Graphene–metal hybrid metamaterials for strong and tunable circular dichroism generation”. **Opt. Lett.** 43, 2636 (2018)
17. S. M. Wang, Q. Q. Cheng, Y. X. Gong, P. Xu, C. Sun, **L. Li**, T. Li, S. N. Zhu, “A  $14 \times 14 \mu\text{m}^2$  footprint polarization-encoded quantum controlled-NOT gate based on hybrid waveguide”. **Nat. Commun.** 7, 11490 (2016)

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18. J. Chen, **L. Li**, T. Li, S. N. Zhu, “Indefinite Plasmonic Beam Engineering by In-plane Holography”, **Sci. Rep.** 6, 28926 (2016)
  19. Y. L. Wang, T. Li, L. Wang, H. He, **L. Li**, Q. J. Wang, and S. N. Zhu, “Plasmonic switch based on composite interference in metallic strip waveguides”, **Laser & Photonics reviews**, 8 (4), L47-L51 (2014).
  20. Q. Q. Cheng, T. Li, **L. Li**, S. M. Wang, S. N. Zhu, “Mode division multiplexing in a polymer-loaded plasmonic planar waveguide”, **Opt. Lett.** 39, 3900 (2014)
  21. X. M. Tang, **L. Li**, T. Li, Q. J. Wang, X. J. Zhang, S. N. Zhu, Y. Y. Zhu, “Converting surface plasmon to spatial Airy beam by graded grating on metal surface”. **Opt. Lett.** 38, 1733 (2013)
  22. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “Steering Surface Plasmon Polaritons from Point Source”, **Opt. Lett.** 37, 5091 (2012)
  23. L. Wang, T. Li, **L. Li**, W. Xia, X. G. Xu, and S. N. Zhu, “Electrically generated unidirectional surface plasmon source”. **Opt. Express** 20, 8710 (2012)
  24. Q. Q. Cheng, T. Li, R. Y. Guo, **L. Li**, S. M. Wang, and S. N. Zhu, “Direct observation of guided-mode interference in polymer-loaded plasmonic waveguide”. **Appl. Phys. Lett.** 101, 171116 (2012)
  25. F. F. Lu, T. Li, J. Xu, Z. D. Xie, **L. Li**, S. N. Zhu, and Y. Y. Zhu, “Surface plasmon polariton enhanced by optical parametric amplification in nonlinear hybrid waveguide”, **Opt. Express** 19, 2858(2011)
  26. Y. J. Zheng, H. Liu, S. M. Wang, T. Li, J. X. Cao, **L. Li**, C. Zhu, Y. Wang, S. N. Zhu, X. Zhang, “Selective optical trapping based on strong plasmonic coupling between gold nanorods and slab”, **Appl. Phys. Lett.** 98, 083117(2011)
  27. C. Zhu, H. Liu, S. M. Wang, T. Li, J. X. Cao, Y. J. Zheng, **L. Li**, Y. Wang, S. N. Zhu and X. Zhang, ” Electric and magnetic excitation of coherent magnetic plasmon waves in a one-dimensional meta-chain”, **Opt. Express** 18, 26268 (2010)

#### Academic Conference

1. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “Broad band focusing and demultiplexing of surface plasmons”, META’12, the 3rd International Conference on Metamaterials, Photonic Crystals and Plasmonics, 2012, Paris
2. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “Non-perfectly-matched in-plane diffractions and applications in plasmonics” , ICNP2012, the sixth International Conference on Nanophotonics, 2012, Beijing
3. T. Li, **L. Li**, and S. N. Zhu, “Steering Surface Plasmons on Metal Surface”, CLEO: 2012, San Jose
4. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “New progresses in steering plasmon beams”, ICNP2013, the seventh International Conference on Nanophotonics, 2013, Hongkong

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5. **L. Li**, T. Li, S. M. Wang, and S. N. Zhu, “New Insight into Collimated Plasmon Beam” , ICMAT2013, International Conference on materials for advanced technologies, 2013, Singapore
  6. **L. Li**, “New progresses in steering plasmon beam”, Metamaterials Science & Technology Workshop, 2015, La Jolla
  7. **L. Li**, and Yongmin Liu, “Mimicking Smith-Purcell emission manipulation in optics”, MRS fall meeting, 2017, Boston.
  8. **L. Li**, “Harnessing Evanescent Waves by Metasurfaces”, MRS fall meeting, 2018, Boston.
  9. **L. Li**, Kan Yao, Zuojia Wang, Yongmin Liu “Harnessing Evanescent Waves by Metasurfaces: An All-Optical Analogue of On-Chip Control of Smith-Purcell Emission”, APS March meeting, 2019, Boston.
  10. **李林**, “基于光学超构透镜阵列的高维量子纠缠和多光子源”, 济南, 第十一届全国光学青年学术论坛, 2019, 邀请学术报告
  11. **李林**, “超构表面量子光源”, 第四届微纳光学技术与应用交流会, 2020, 成都, 邀请报告。
  12. **李林**, “超构表面在量子光学中的应用”, 第四届光学青年科学家论坛, 2020, 宁波, 邀请报告。
  13. **李林**, “基于超构表面的量子光源”, 2021 集成光子学大会, 2021, 成都, 邀请报告。