

清华大学物理系

TSINGHUA UNIVERSITY
DEPARTMENT OF PHYSICS[首页](#)[概况](#)[人员](#)[科学研究](#)[本科生](#)[研究生](#)[招聘信息](#)[教师](#)[概况](#)[按拼音顺序](#)[按专业分类](#)[离退休教师](#)[技术人员](#)[行政人员](#)刘永椿
助理教授清华大学物理系
理科楼
北京 100084

电话：010-62783582

传真：010-62781604

ycliu@mail.tsinghua.edu.cn

个人主页：<http://info.phys.tsinghua>

个人简历

教育经历：

2010/09-2015/07

北京大学物理学院

2006/09-2010/07

北京交通大学理学院

研究经历：

2017/01-今

清华大学物理系

2015/08-2017/01

中国空间技术研究院钱学森空间技术实验室

2012/10-2013/07

美国哥伦比亚大学机械工程系

研究领域

研究领域为量子光学与微纳光子学，近年来致力于光力学(optomechanics)、QED)、光学微腔、自旋压缩等方向的研究，在PRL、PRA等期刊发表论文30余篇，兴趣为光力学理论与应用，研究宏观/介观机械振动系统中的量子特性及其操控加速度、磁场等物理量的精密测量与量子信息处理中。

欢迎博士后、访问学者、研究生、本科生来此交流，常年不定期招收博士后1名博士生并接纳2~4名本科生参加科研，感兴趣的同学可随时Email联系(ycliu@

奖励、荣誉和学术兼职

SPIE (国际光学工程学会) Optics and Photonics Education Scholarship、Wu Science Scholarship、中国光学学会王大珩光学奖、北京大学优秀博士学位

为、YIN、YUN、YE、YU、YU、YU、YU 等期刊作者。

Selected publications:

1. **Yong-Chun Liu**, Xingsheng Luan, Hao-Kun Li, Qihuang Gong, Chee Wee Coherent Polariton Dynamics in Coupled Highly Dissipative Cavities, Ph (2014).
2. **Yong-Chun Liu**, Yun-Feng Xiao, You-Ling Chen, Xiao-Chong Yu, and Down-Conversion and Polariton Pair Generation in Optomechanical Syst 083601 (2013).
3. **Yong-Chun Liu**, Yun-Feng Xiao, Xingsheng Luan, and Chee Wei \ Cooling of a Mechanical Resonator in Strong Coupling Optomechanics, Pl (2013).
4. **Yong-Chun Liu**, Zhi-Fang Xu, Guang-Ri Jin, and Li You, Spin Squeeze Twisting into Two-Axis Twisting, Phys. Rev. Lett. 107, 013601 (2011).
5. **Yong-Chun Liu**, Yun-Feng Xiao, Bei-Bei Li, Xue-Feng Jiang, Yan Li, and a single diamond nanocrystal to a whispering-gallery microcavity: Photo Rayleigh scattering, Phys. Rev. A (Rapid Commun.) 84, 011805(R) (2011).
6. **Yong-Chun Liu** and Yun-Feng Xiao, Macroscopic mechanical system: world, National Science Review 2, 9 (2015). (Invited)
7. **Yong-Chun Liu**, Yun-Feng Xiao, Xingsheng Luan, Qihuang Gong, and cavities for motional ground-state cooling and strong optomechanical c 033818 (2015).
8. **Yong-Chun Liu**, Rui-Shan Liu, Chun-Hua Dong, Yan Li, Qihuang ("Cooling mechanical resonators to quantum ground state from room tem 013824 (2015).
9. **Yong-Chun Liu**, Yu-Feng Shen, Qihuang Gong, and Yun-Feng Xia optomechanical cooling in the strong-coupling regime, Phys. Rev. A 89, 053
10. **Yong-Chun Liu**, Yun-Feng Xiao, Xue-Feng Jiang, Yan Li, and C treatment of scattering-induced free-space excitation and collection in microcavities, Phys. Rev. A 85, 013843 (2012).
11. **Yong-Chun Liu**, Guang-Ri Jin, and Li You, Quantum-limited metrology dephasing, Phys. Rev. A 82, 045601 (2010).
12. **Yong-Chun Liu**, Yu-Wen Hu, Chee Wei Wong and Yun-Feng optomechanical cooling, Chin. Phys. B 22, 114213 (2013). (Invited)
13. **Yong-Chun Liu**, Yun-Feng Xiao, Xingsheng Luan, Qihuang Gon "Optomechanically-induced-transparency cooling of massive mechanical ground state", Sci. China-Phys. Mech. Astron. 58, 050305 (2015). (Invited)
14. Yun-Feng Xiao, **Yong-Chun Liu**, Bei-Bei Li, You-Ling Chen, Yan Li, a enhanced light-matter interaction in a hybrid photonic-plasmonic reson. Commun.) 85, 031805(R) (2012).
15. Hao-Kun Li, **Yong-Chun Liu**, Xu Yi, Chang-Ling Zou, Xue-Xin Ren, ar for a near-field optomechanical system with enhanced linear and quadratic 053832 (2012).
16. Xiao-Chong Yu, **Yong-Chun Liu**, Meng-Yuan Yan, Wei-Liang Jin, and diamond nanocrystals to a high-Q whispering-gallery microresonator, Phys.
17. Xi Chen, **Yong-Chun Liu**, Pai Peng, Yanyan Zhi, and Yun-Feng Xi: mechanical resonators in hybrid atom-optomechanical systems, Phys. Rev.
18. Guang-Ri Jin, **Yong-Chun Liu** and Wu-Ming Liu, Spin squeezing in a c model, New J. Phys. 11, 073049 (2009).
19. Cuicui Lu, **Yong-Chun Liu**, Xiaoyong Hu, Hong Yang, and Qihuang Gc and broadband wavelength demultiplexer based on multi-component nano-c 27428 (2016).
20. **Yong-Chun Liu**, Bei-Bei Li and Yun-Feng Xiao, Electromagnetically ind microcavities, Nanophotonics (2017), in press. (Invited)

