



侯少程

讲师

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#### 教育背景

东北师范大学 量子科学中心 博士后（2016-2019）  
大连理工大学 理论物理专业 理学博士（2009-2015）  
大连理工大学 电子科学与技术专业 工学学士（2005-2009）

#### 研究领域

量子非马尔可夫动力学，量子控制，量子信息处理，开放量子系统

#### 代表性成果

论文类：

- (1) **S. C. Hou**, G. Q. Shuai, X. Y. Zhang, J. Shen, X. X. Yi, Influence of initial states on memory effects: A study of early-time superradiance, *Physical Review A*, 109, 053708, 2024. (SCI)
- (2) **S. C. Hou**, X. X. Yi, Quantum Lyapunov control with machine learning, *Quantum Information Processing*, 19 (1), 8, 2020. (SCI, 被引 10 次)
- (3) W. Cheng, **S. C. Hou** (共同一作), Z. Wang, X. X. Yi, Quantum metrology enhanced by coherence-induced driving in a cavity-QED setup, *Physical Review A*, 100, 053825, 2019. (SCI, 被引 10 次)
- (4) **S. C. Hou**, X. X. Yi, S. X. Yu, C. H. Oh, Alternative non-Markovianity measure by divisibility of dynamical maps, *Physical Review A*, 83, 062115, 2011. (SCI, 被引 98 次)
- (5) **S. C. Hou**, S. L. Liang, X. X. Yi, Non-Markovianity and memory effects in quantum open systems, *Physical Review A*, 91, 012109, 2015. (SCI, 被引 24 次)
- (6) **S. C. Hou**, M. A. Khan, X. X. Yi, D. Dong, I. R. Petersen, Optimal

Lyapunov-based quantum control for quantum systems, *Physical Review A*, 86, 022321, 2012. (SCI, 被引 88 次)

(7) **S. C. Hou**, X. L. Huang, X. X. Yi, Suppressing decoherence and improving entanglement by quantum-jump-based feedback control in two-level systems, *Physical Review A*, 83, 062115, 2010. (SCI, 被引 38 次)

(8) **S. C. Hou**, X. X. Yi, S. X. Yu, C. H. Oh, Singularity of dynamical maps, *Physical Review A*, 86, 012101, 2012. (SCI, 被引 21 次)

(9) W. J. Liu, **S. C. Hou** (通讯作者), Q. P. Ma, P. L. Wang, Using silver as a surrogate for plutonium: An experimental study of the explosive silver aerosol source term, *Aerosol Science and Technology*, 50 (8), 857-869, 2016. (SCI, 被引 3 次)

(10) **S. C. Hou**, L. C. Wang, X. X. Yi, Realization of quantum gates by Lyapunov control, *Physics Letters A*, 378, 699, 2014. (SCI, 被引 33 次)

(11) L.C. Wang, **S. C. Hou**, X. X. Yi, D Dong, I. R. Petersen, Optimal Lyapunov quantum control of two-level systems: Convergence and extended techniques, *Physics Letters A*, 378 (16-17), 1074-1080, 2014. (SCI, 被引 26 次)

(12) W. Wang, **S. C. Hou**, X. X. Yi, Adiabatic evolution under quantum control, *Annals of Physics*, 327 (5), 1293-1303, 2012. (SCI, 被引 16 次)

(13) Z. C. Shi, **S. C. Hou**, L. C. Wang, X. X. Yi, Preparation of edge states by shaking boundaries, *Annals of Physics*, 373, 286-297, 2016. (SCI, 被引 2 次)

(14) B. Cui, **S. C. Hou**, W. Wang, X. X. Yi, Dynamics of a driven optical lattice with distance-selective dissipation. *Journal of Physics B*, 47 (21), 215303, 2014. (SCI, 被引 9 次)

#### 代表性项目

(1)国家自然科学基金青年项目, 11705026, 记忆效应在量子控制问题中的应用, 2018/01-2020/12, 结题, 主持。

(2) 中国博士后科学基金面上项目, 2017M611293, 记忆效应在量子信息处理中的应用, 2017/05-2019/12, 结题, 主持。

#### 社会兼职

International Journal of Control、Quantum Information Processing 等杂志审稿人

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