Ming **Lyu** (吕铭)

PhD candidate, Electrical Engineering, Princeton University

linkedin.com/in/MingLyu github.com/CareF
+1 (609)-933-4833 CareF.Lm@gmail.com
751 Hibben Magie Rd, Unit 215, Princeton, NJ, 08540

Applied Physics, Optics, Photonics, Semiconductors, Computer Science

I am a PhD student doing research on Quantum Cascade Laser, with physics background and some experience of Quantum Information, Quantum Computing and Quantum Optics. I am interested in Computer Science and Technology and familiar with high-tech development.

Education

Princeton University
09/2016 - expected 2021

PhD in Electrical Engineering
- Advisor : Dr. Claire Gmachl
- Quantum Cascade Laser and GaAs/AlGaAs Photonic Devices

Tsinghua University
08/2012 - 07/2016

B.S. in Physics, Minor in Computer Science
- Thesis : "*Long Coherence Time Quantum Memory on Ion Trap System with Dynamical Decoupling*" (Thesis Advisor : Dr. Kihwan Kim)
- Graduate with hornor ("Ye Qisun" Award, Outstanding Graduate in Beijing)

Publication

"**Design and Optimization of 14-20 µm Wacelength GaAs/AlGaAs Quantum Cascade Lasers**", 4th International Workshop on Infrared Technologies (2017), **M. Lyu**, C. Gmachl

"**Single-Qubit Quantum Memory Exceeding Ten-minute Coherence Time**", Nature Photonics 11, 646-650 (2017), Y. Wang, M. Um, J. Zhang, S. An, **M. Lyu**, J.-N. Zhang, L.-M. Duan, D. Yum, K. Kim

"**Non-Markovian Dynamics of Open Quantum Systems without Rotating Wave Approximation**", Arxiv :1047.5359 (2014), M. Tang*, Y. Wu*, **M. Lyu***, J. Tang, Z. Guo, T. Chen, X.-B. Wang (*equal contribution)

Social Services and Activities

Vise-president of Association of Chinese Students and Scholars at Princeton University (ACSSPU)	03/2017 - PRESENT
President of Student Association for Science and Technology, Physics Department, Tsinghua University	06/2015 - 07/2016
Founder and Team Leader of the Debate Team in Physics Department, Tsinghua University	09/2013 - 05/2016
Vice-president of Student Union, Physics Department, Tsinghua University	09/2014 - 02/2015
Chair of Student Life and Right in Student Union, Physics Department, Tsinghua University	09/2013 - 09/2014
Zhihu.com (Chinese Quora) Oustanding Answerer on Physics and Quantum Physics, with 12.8k followers	

Profesional experience

University of Waterloo
07/2015 - 09/2015

Research Assistant, The Institute for Quantum Computing (IQC)
- Advisor : Dr. Raymond Laflamme, Dr. Guanru Feng
- Electron Spin Resonance implementation of Quantum Computing and Simulation

Princeton University

Teaching Assistant, School of Engineering and Applied Science

2017 Fall
- EGR 151 : Foundations of Engineering : Mechanics, Energy, and Waves
  - General physics for engineering freshmen
  - Lab sessions for physics and creative thinking

2018 Fall
- ELE 308 : Electronic and Photonic Devices
  - Fabrication of Si-based devices like MOSFET, CMOS, PN junction, solar cells, etc.

Skills

Programing	Python, C, C++, Qt, OpenMP, MATLAB, Mathematica, Bash, Git, LaTeX, Markdown
Experiment	Cleanroom Fabrication, Nano-structure Imaging, Infrared and Laser Optics, Low Temperature Operation