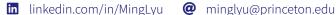
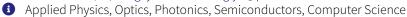
# Ming LYU (吕铭)

## PhD candidate, Electrical Engineering, Princeton University







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.



### **EDUCATION**

### Princeton University 09/2016 - expected 2021

### PhD in Electrical Engineering (GPA 3.891/4.0)

Advisor: Dr. Claire Gmachl

Long wavelength Quantum Cascade Laser and GaAs/AlGaAs Photonic Devices Semiconductor Device Infrared Optics Laser and Detector Chemical and Bio-sensing

### Tsinghua University 08/2012 - 07/2016

### B.S. in Physics (GPA: 93.0/100, top 3/33), Minor in Computer Science (GPA 92.9/100)

- Thesis: "Long Coherence Time Quantum Memory on Ion Trap System with Dynamical Decoupling" (Thesis Advisor: Dr. Kihwan Kim)
- Graduate with hornor: 2016 "Chi-Sun Yeh" Award (highest honor for physics undergraduate), 2016 Beijing Outstanding Graduate, 2013-2016 Outstanding Student Scholarship

# Social Services and Activities

Vise-president: Association of Chinese Students and Scholars at Princeton University (ACSSPU)

03/2018 - 04/2019

- > Coordinated advertising and public relationships
- Built connection with student groups for unionization issue

President: Student Association for Science and Technology, Physics Department, Tsinghua University

06/2015 - 07/2016

- Led the update of the student-run server and department SNS website and FTP services
- > Organized student academic colloquium
- > Organized campus competition for China Undergraduate Physics Tournament

Vice-president: Student Union, Physics Department, Tsinghua University

09/2014 - 02/2015

- > Coordinated the department hearing for students' right and benefit
- > Coordinated department student orientation
- > Connected students and school administration for housing issues
- Organized the practice of December-9th Chorus Competition

Founder and Team Leader: the Student Debate Team in Physics Department, Tsinghua University Zhihu.com Outstanding Answerer on Physics and Quantum Physics 知乎 逸心 , with 16k followers 09/2013 - 05/2016



### Profesional experience

## University of Waterloo

07/2015 - 09/2015

### Research Assistant, THE INSTITUTE FOR QUANTUM COMPUTING (IQC)

Teaching Assistant, School of Engineering and Applied Science

- Advisor: Dr. Raymond Laflamme, Dr. Guanru Feng
- Electron Spin Resonance implementation of Quantum Computing and Simulation

### **Princeton University**

2019 Spring

2018 Fall

2017 Fall

ELE 351: Electromagnetic Field Theory and Physical Optics

> Prepared and helped students with numerical simulation tools for Maxwell equations

ELE 308: Electronic and Photonic Devices

➤ Fabrication of Si-based devices like MOSFET, CMOS, PN junction, solar cells, etc.

EGR 151: Foundations of Engineering: Mechanics, Energy, and Waves

> Lab sessions for physics and creative thinking



## PUBLICATION

"Design and Characterization of 14 –20µm Wavelength GaAs/AlGaAs Quantum Cascade Lasers", Infrared Terahertz Quantum Workshop (2019), M. Lyu, Loren Pfeiffer, Ken West, 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)