Ph.D.

Sreraman Muralidharan

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EDUCATION

YALE UNIVERSITY — **New Haven, CT**
Ph.D. Electrical Engineering — **Expected 2017**
[Awards: Sheffield fellowship]

HERIOT WATT UNIVERSITY — **Scotland, UK.**
Masters in Photonics (Year II) — **2011**
KTH — **Sweden.**
Masters in Photonics (Year I) — **2010**
[Awards: Erasmus Mundus scholarship]
LOYOLA COLLEGE — **Chennai, India**
Bachelors in Physics — **2008**
[**Awards**: KVPY scholarship, NIUS scholarship, Attended "Asian science camp" in Japan.]

RESEARCH EXPERIENCE

Yale University, Department of Electrical Engineering — **New Haven CT**
Dissertation research: "*Architectures for long distance quantum communication*" — **2011 - Present**
- Classified Quantum repeaters into three generations based on flow of classical information.
- Introduced a *cost coefficient* to study optimized and compare their performances using MATLAB.
- Published two papers (including Physical Review Letters)

Loyola college — **Chennai, India**
Undergraduate research — **2008**
- Introduced Novel schemes for quantum secret sharing.
- Published two highly cited papers in Physical Review A

Served as a **Reviewer** for New Journal of physics, Scientific reports, Journal of optics, Optics communications, Applied Physics B, International journal of theoretical physics, Quantum information and computation and Quantum information processing.

TEACHING EXPERIENCE

Yale University, Department of Applied physics
Teaching Fellow, *Quantum information and computation.*
Yale University, School of Engineering
Teaching Fellow*, Multivariable calculus for Engineers*
Yale University, Department of Physics
Teaching Fellow, *Basic Physics Laboratory*

PUBLICATIONS (Citations >660)

1. Sreraman Muralidharan, Changling Zou, Linshu Li, Jianming Wen, Liang Jiang, "Overcoming erasure errors with multilevel systems", **New Journal of Physics**, 19 013026 (2017). http://iopscience.iop.org/article/10.1088/1367-2630/aa573a/pdf
2. Sreraman Muralidharan, Linshu Li, Jungsang Kim, Norbert Lütkenhaus, Mikhail D. Lukin and Liang Jiang, "Optimal architectures for long distance quantum communication", **Scientific Reports** 6, 20463 (2016). http://www.nature.com/articles/srep20463
3. Sreraman Muralidharan, Jungsang Kim, Norbert Lütkenhaus, Mikhail D. Lukin, and Liang Jiang, "Ultrafast and Fault-Tolerant Quantum Communication across Long Distances", **Physical Review Letters**, 112, 250501 (2014) http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.112.250501
4. Sreraman Muralidharan and Prasanta K. Panigrahi, "Perfect Teleportation and Superdense Coding through a Genuinely Entangled Five-qubit State", Phys. Rev. A, 77, 032321 2008. http://journals.aps.org/pra/abstract/10.1103/PhysRevA.77.032321