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**Laboratory for Ultracold
Quantum Matter & Light**



Education

2011 *Ph.D. in Physics, California Institute of Technology*

2006 *B.S. in Physics, State University of New York at Stony Brook (Stony Brook University)*

Positions held

2014-present *Assistant Professor, Institute for Quantum Computing, University of Waterloo*

2014-present *Assistant Professor, Physics and Astronomy, University of Waterloo*

2016-present *Assistant Professor, Waterloo Artificial Intelligence Institute, University of Waterloo*

2015-present *Affiliate Faculty, Perimeter Institute for Theoretical Physics*

2011-2014 *Senior Scientist, Korea Institute of Science and Technology*

Awards & Honours

2015 *Kavli Fellow (US National Academy of Sciences)*

2015 *Early Researcher Award, Ontario Ministry of Research and Innovation*

2012 *16th Presidential Young Scientist Award (Physics), Korea Academy of Science and Technology*

Current editorial boards

Scientific Reports

Selected committee work

2017-Present *Organizing Committee for ICAP 2020 and co-chair for ICAP Summer School*

2015-2018 *IQC/Physics Faculty Search and Hiring Committee, University of Waterloo, Canada*

2016-Present *IQC Faculty Performance Evaluation and Renewal Committee, University of Waterloo, Canada*

2016 *Organizing Committee for ICAP Satellite Workshop (Seoul)*

2015 *Co-chair for APCWQIS 2013 (Seoul)*

Five selected (recent) publications

1. Dong, Y., Lee, Y.-S., **Choi, K. S.** (2018)
Waveguide QED toolboxes for synthetic quantum matter
arXiv.1712.02020 (to appear)
2. Goban, A., Hung, C.-L., Yu, S.-P., Hood, J. D., Muniz, J. A., Lee, J. H., Martin, M. J., McClung, A. C., **Choi, K. S.**, Chang, D. E., Painter, O., Kimble, H. J. (2014)
Atom-light interactions in photonic crystals
Nature Communications 5, pp. 3808
3. **Choi, K. S.**, Goban, A., Papp, S. B., van Enk, S. J., Kimble, H. J. (2010)
Entanglement of spin waves among four quantum memories
Nature 468, pp. 412
4. Papp, S. B. *, **Choi, K. S.** *, Deng, H., Lougovski, P., van Enk, S. J., Kimble, H. J. (2009)
Characterization of multipartite entanglement for one photon shared among four optical modes
Science 324, pp. 764
5. **Choi, K. S.**, Deng, H., Laurat, J., Kimble, H. J. (2008)
Mapping photonic entanglement into and out of a quantum memory
Nature 452, pp.67