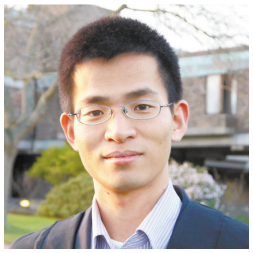
Names of References



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Short Bio Dr.Chao-Yang Lu is a professor of physics leading (together with Prof. ***Jian-Wei Pan***) groups on multi-photon entanglement and quantum dots in the Hefei National Laboratory for Physical Sciences at Microscale, USTC. He received his B.Sc. degree from School of Physics at USTC in 2004. He received his Ph.D. degree from ***Cavendish Laboratory***, ***University of Cambridge*** in 2011, supervised by ***Mete Atatüre***. His team realized six-photon and eight-photon entanglement for the first time. They used the entangled photons to demonstrate algorithms of factoring, solving linear equations, quantum machine learning and multiple properties teleportation. His quantum dot group realized single-photon source with 99.5% indistinguishability and single-photon source on 2D material.

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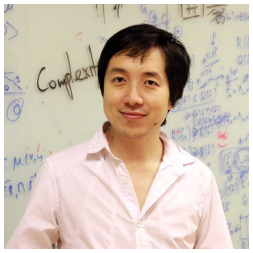
Short Bio Dr.Man-Hong Yung is an associate professor in SUSTC and member of the ***editorial board*** (Quantum Physics section) of ***Scientific Reports***. His research focus on quantum information theory, quantum computational complexity, quantum chemistry and thermodynamics. He received B.Sc. and M.Sc. from ***The Chinese University of Hong Kong***. In 2009, he obtained Ph.D. from ***University of Illinois at Urbana-Champaign***, supervised by ***Anthony Leggett*** (***2003 Nobel Prize in Physics***). Then he joined ***Havard*** as a postdoc supervised by ***Alán Aspuru-Guzk***. He worked in Tsinghua as an assistant professor in 2013-2015. He collaborated with experimental group and realized the demon-like algorithmic quantum cooling and variational eigenvalue solver on a photonic quantum processor.



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Short Bio Mile is an assistant professor at the Complexity Institute at the School of Physical and Mathematical Sciences, Nanyang Technological University and research assistant professor the Centre for Quantum Technologies at the National University of Singapore. His primary research interest is in the interface between physics, computation, and complexity. Mile received his B.Sc. and M.Sc. from ***Auckland University***, New Zealand. In 2009 he received Ph.D. in ***University of Queensland***, Australia, under supervision of ***Michael Nielsen***, ***Tim Ralph***, ***Andrew Doherty***. After he finished his postdoc research in ***University of Oxford*** with ***Vlatko Vedral***, he joined Tsinghua as an assistant professor and moved to NTU in 2016. He proposed continuous variable cluster state computation, demonstrated the the simplest models to almost any Stochastic Process is quantum mechanica, and the equivalence between realizing optimal quantum algorithm and free fall in a suitable metric, and developed the theory and experiment that demonstrates discord can be harness as a quantum resource.