

Quantum Optics

In semi-classical and quantum-mechanical physics, light can be considered not only as electromagnetic waves but also as particles called photons. The interaction of the matter at the submicroscopic level and the incoming light is in the fields of quantum optics. The main goal of quantum optics is to understand the quantum information and learn how to manipulate and realize the technologies. The popular studies of it include quantum correlation, quantum entanglement, and quantum information processing, which have a huge potential application of quantum computing.

The experimental techniques of quantum optics are delicate and sensitive to the environment. Therefore, a quiet system is required at cryogenic temperatures from the thermal and physical perspectives.

Customer References:

- 1 、 Riccardo Comin, Department of Physics, Massachusetts Institute of Technology, USA: [Nature Physics, volume 15, 1255–1260 \(2019\)](#).
- 2 、 Eric Martin and Steven Cundiff, Applied Physics Program and Department of Physics, University of Michigan, USA: [Phys. Rev. B 97, 081301\(R\) \(2018\)](#).
- 3 、 Emanuele Pelucchi, University College Cork, Tyndall National Institute, Ireland: [Nature Photonics, volume 7, 527–531 \(2013\)](#).

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