

# QUANTUM OPTICS

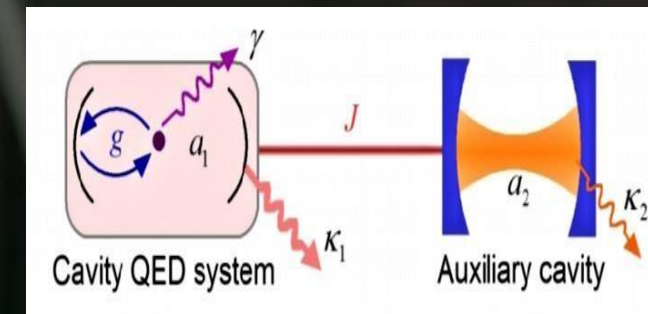
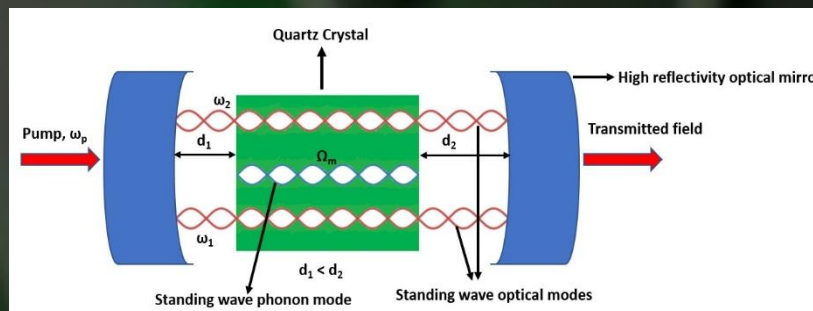
Quantum optics is the study of quantized light and its interaction with matter. One of the main goals is to understand the quantum nature of information and to learn how to formulate, manipulate, and process it using physical systems that operate on quantum mechanical principles.

## RESEARCH TOPICS

- Quantum Optomechanics
- Plasmonic Cavities
- Cavity Quantum Electrodynamics (C-QED)
- Dynamics of low dimensional systems such as quantum dots.

## APPLICATIONS

- Optical Switching
- Optical Mode Conversion
- Quantum Information Processing
- Quantum Communication



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