

Short Course 5: Practical Quantum Optics

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Benefits and Learning Objectives:

- Understanding the quantum limitations in optics – such as in sensing, amplification and phase conjugation – and appreciating the opportunities
- Learn the basic tools for describing quantum noise
- Acquire the practical skills for experimenting with non classical light – generation, characterization and control
- Learn to assess the potential benefit when attempting to exploit quantum aspects in standard optical scenarios including telecom applications.

Intended Audience:

The course is designed to appeal to an audience without prior experience in quantum optics as well as to researchers who want to refresh and be updated with current trends. This course is intended to be beneficial for graduate students and industrial and academic researchers alike having a general interest in quantum optics and its practical application.