



Contribution ID : 5

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## **M. Bellini - Generation, manipulation, and detection of continuous-variable quantum states of light (part 1)**

*lunedì 16 settembre 2019 16:00 (90)*

I will introduce the basic concepts and provide real experimental examples of quantum state engineering and measurement, with special emphasis to continuous-variable quantum optical states of light. The first lecture will introduce fundamental ideas and describe the basic tools, such as parametric down-conversion processes and balanced homodyne detection, for the manipulation and complete characterization of a quantum light field. The second lecture will be devoted to presenting some advanced applications to a variety of nonclassical states of light, with illustrations of the most fundamental concepts of quantum mechanics at play in the laboratory.