

Thesis Defense - Generation of Non Classical States of Light

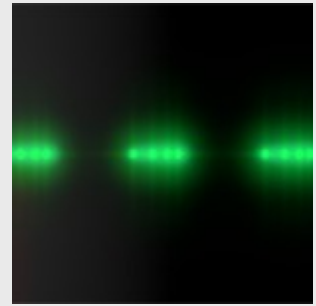
Place: Sala de Conferencias, Módulo 0.

When: 11:00, Monday, 19 December, 2016.

Program: Defense by Mr. Carlos Sánchez, [Department of Theoretical Condensed Matter Physics, Universidad Autónoma de Madrid](#).

Title: Generation of Non Classical States of Light.

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In this Thesis, I study how to manipulate light-matter interaction in order to design emitters of novel quantum states of light, an essential ingredient for numerous quantum technologies. The most prominent example is a family of sources that emit all of its light in terms of N-photon bundles, i.e., packets composed of a fixed number of photons, therefore substituting the essential building block of light, the photon, by a group of them. This is done by bringing together two limits of light-matter interaction, in which matter, consisting of few energy levels, is coupled either to a strong coherent field (essentially classical) or to a field dominated by quantum fluctuations. In the laboratory, the union of both regimes can be done by combining intense lasers and optical resonators.