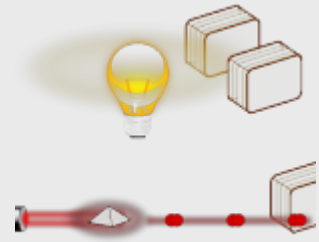


When Quantum Light Meets Matter

Article: published in [Physical Review A](#) by J. C. López Carreño, C. Sánchez Muñoz, E. del Valle and F. P. Laussy, [Department of Theoretical Condensed Matter Physics](#) and IFIMAC researchers..



A theoretical analysis of the interaction between quantum light and matter shows that quantum light can offer advantages over its classical analog. Interactions between classical light and matter lie at the heart of a broad range of applications—think sunlight striking a solar panel or laser light scanning a barcode. But what happens when quantum light such as light made of “squeezed” or entangled photons interacts with matter? In two back-to-back papers, Fabrice Laussy from the [Autonomous University of Madrid](#), Spain, and colleagues now report a theoretical analysis of the interaction between quantum light and matter that, unlike most previous studies, doesn’t solely apply to specific types of quantum light. The researchers find that quantum light offers advantages over its classical counterpart for certain systems and applications. [\[Full article\]](#)

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