

NONCLASSICALITY IN QUANTUM OPTICS: PHASE-SPACE APPROACH

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ABSTRACT

The notion of nonclassicality refers to physical properties or phenomena that are not accessible in the classical domain. It is of fundamental and practical importance to identify and characterize nonclassicality in a variety of quantum systems. It provides a crucial resource, e.g., for quantum technology and quantum information processing, as well as a profound insight to distinguish between quantum and classical physics. In this talk, we present and discuss our recent criteria for nonclassicality which draw on the phase-space description of quantum states but in a novel context.