Title:	A Squeezed Review on Coherent States and Nonclassicality for Non-Hermitian Systems with Minimal Length
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Abstract:	It was at the dawn of the historical developments of quantum mechanics when Schrödinger, Kennard and Darwin proposed an interesting type of Gaussian wave packets, which do not spread out while evolving in time. Originally, these wave packets are the prototypes of the renowned discovery, which are familiar as “coherent states” today. Coherent states are inevitable in the study of almost all areas of modern science, and the rate of progress of the subject is astonishing nowadays. Nonclassical states constitute one of the distinguished branches of coherent states having applications in various subjects including quantum information processing, quantum optics, quantum superselection principles and mathematical physics. On the other hand, the compelling advancements of non-Hermitian systems and related areas have been appealing, which became popular with the seminal paper by Bender and Boettcher in 1998. The subject of non-Hermitian Hamiltonian systems possessing real eigenvalues are exploding day by day and combining with almost all other subjects rapidly, in particular, in the areas of quantum optics, lasers and condensed matter systems, where one finds ample successful experiments for the proposed theory. For this reason, the study of coherent states for non-Hermitian systems have been very important. In this article, we review the recent developments of coherent and nonclassical states for such systems and discuss their applications and usefulness in different contexts of physics. In addition, since the systems considered here originated from the broader context of the study of minimal uncertainty relations, our review is also of interest to the mathematical physics community.
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