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Reviewer: Znojil, Miloslav

Reviewer number:

Address:
NPI ASCR, 250 68 Rez,
Czech Republic
znojil@ujf.cas.cz

Author: Sinha, A.; Dutta, D.; Roy, P.

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Review text:

The paper is inspired by the recently formulated belief (cf. also Bender, Carl M.; Jones, Hugh F., Quantum counterpart of spontaneously broken classical PT symmetry. J. Phys. A 44 (2011), 015301, MR2749106) that the presence of the Kato's exceptional points in the quantum spectra of energies (i.e., in physical terms, the emergence of quantum instabilities) finds certain characteristic parallels (e.g., chaotic behavior) in the limiting case of the classical system. The present authors decided to replace the popular unsolvable models by an exactly solvable one. Their results confirm the current conjecture that the classical analogue of the exceptional point might be the point of the loss of the periodicity of the classical complex trajectories.