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Reviewer: Znojil, Miloslav

Reviewer number:

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

Author: Assis, Paulo E. G.; Fring, Andreas

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The key message of this paper is that the search for the shortest time needed for the passage of a classical particle from point A to point B (= the classical brachistochrone problem) can find several non-equivalent reformulations within quantum theory. A compact review of these alternative possibilities is provided and discussed via elementary matrix illustrative examples. In this sense the paper may be read as a systematic completion of the recent provocative letter [6] which conjectured that a "faster than Hermitian" evolution can exist in standard Quantum Mechanics. The apparent paradox seems to be clarified and resolved at present (for details one may consult, e.g., the Mostafazadeh's preprint cited in footnote 1 on page 4). In essence, one simply has to distinguish between the closed quantum systems (where the generator of the time evolution must obligatorily be Hermitian so that the passage time between two orthogonal states has its well known non-vanishing minimum) and the open quantum systems (there, the passage time can really be made arbitrarily short). All interested readers are recommended to check arXiv and pay attention also to the subsequent rather lengthy discussion of this interesting subject by many other authors (cf., e.g., Geyer, H B; Heiss, W D; Scholtz, F G: "The physical interpretation of non-Hermitian Hamiltonians and other observables." Canadian Journal of Physics 86, 1195-1201 (2008) or the very recent letter by Uwe Guenther and Boris F. Samsonov: "The Naimark dilated PT-symmetric brachistochrone." Phys. Rev. Lett. 101, 230404 (2008) [arXiv:0807.3643]).