

# Review of: "The Conservation Laws in Quantum Mechanics"

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**Potential competing interests:** No potential competing interests to declare.

I reviewed the manuscript; **The Conservation Laws in Quantum Mechanics.**

The authors have to address the following points:

1. The uniqueness of this work lies in its novelty, which the author explicitly highlights.
2. The authors have identified the Schrödinger equation as an exemplar of precision in differential equations governing motion. What mathematical insights underlie the conservation laws associated with this equation?
3. While discussing the mathematical prospects of conservation laws using the calculus of variations, the authors inadvertently omitted to explore this avenue. It is recommended that the authors refer to the following work for an in-depth understanding of the mathematical perspectives regarding conservation laws;
  - i. Group invariant solutions of wave propagation in phononic materials based on the reduced micromorphic model via optimal system of Lie subalgebra;
  - ii. Invariance analysis of Thermophoretic motion equation depicting the wrinkle propagation in substrate-supported Graphene sheets;
  - iii. Symmetry analysis and invariant solutions of Riabouchinsky Proudman Johnson equation using optimal system of Lie subalgebras.

The authors are encouraged to address all the points mentioned above in their manuscript. After revisions have been made, a revised version of the manuscript will be recommended for publication in the journal.