



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_37327
Title of the Manuscript:	Mesoscopic RLC Circuit and its Associated Occupation Number and Berry Phase
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Clarify the contribution of mass dependent model to the RLC, particularly highlights the differences against Pedrosa and Pinheiro results! Calculate the Bogoliubov's transformations and specify the interval $[t_i, t_f]$ in the sense of rel. 15 and 16 from Petarpa and Visser paper!	
Minor REVISION comments	Correct grammar, spell names, etc; ex: Bogoliubov's (this is a serious offence)	
Optional/General comments	<p>The author presents the quantization of the mesoscopic RLC circuit without source. The system is modeled as a damped harmonic oscillator as it is asserted in introduction, however the treatment below is based on on time-dependent harmonic oscillator. The article follows closely the article of I. A. Pedrosa and A. P. Pinheiro "Quantum Description of a Mesoscopic RLC Circuit", which is cited as reference [5], the author tries to give the same argument in the case of time-dependent mass. I am not sure this is holds in any circumstances!</p> <p>The author should clearly specify what's new and how this new feature applies to RLC circuit against Pedrosa and Pinheiro work.</p> <p>The article is written in a manner that leaves the impression that the author does not master the multitude of ideas taken from literature. It seems like an ensemble of ideas without a goal!</p> <p>Even so Bogoliubov's name is spelled incorrectly as " Bogolyubov coefficients"</p> <p>The author should be referred to an important study Bounding the Bogoliubov coefficients by Petarpa Boonserm and Matt Visser Ann. Phys. 323: 2779-2798, 2008. Some representative references to research on exactly solvable potentials should be given. These are found on the end of Petarpa and Visser paper and have to be added with the newly found pseudo-Gaussian potential namely: "Exact solution to the Schrödinger's equation with pseudo-Gaussian potential" by Felix Iacob and Marina Lute J. Math. Phys. 56 (12), 121501 and with the general presentation of the class o Harmonic Oscillators namely: "Remarks on the geometric quantization of a class of harmonic oscillator type potentials" by Felix Iacob arXiv preprint arXiv:1607.06630</p> <p>The article should meet the publication criteria just after these suggested revisions are made.</p>	

Reviewer Details:

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