Replay to referee 1

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Abstract

The following contains responses to the referee 1 comments copied from the SAIP2016 portal under 'History - > View'. Referee comments, in blue, are followed by our answers in black.

Content: To be corrected; submitted on Thu 16 Nov 2017 at 22:35; Comments - Reviewer 1

0.1 Comments requiring answers

Can the author attend to the following issue. In Section 3 can be explain a little bit on the software used for the numerical calculations.

Fixed. We added: 'All the results discussed in this paper were calcualted with code written in Octave.'

I also feel that the first paragraph on the Results still explain the methodology followed. It can be rewritten in a proper way as it seems as we are assuming there.

The first paragraph of Section 4 has been moved to the last paragraph of Section 3 (Method).

Need more explanation on the gab of figure 5, what contributes to the difference.

We added the following after Eq. (4):

'The first two terms describe the shape of the potential and the last two terms are particle number dependent site independent constants. These constants change when N passes through an integer and give rise to a site independent discontinuity in the potential at integer particle numbers.'

0.2 Criteria Evaluation

Does the article that you are being asked to review match your expertise? (On scale, + for yes or agree): Neutral

Are there any potential conflicts of interest if you review this article? (+3 for yes / -3 for no): Neutral

A1 Scientific merit: Is the work scientifically rigorous and accurate? Is it appropriate for the proceedings?: Neutral

A2 Clarity: Are the ideas in the paper communicated clearly and legibly? : Neutral A3 Context: Is there sufficient discussion of the background for this work and suitable referencing?: Neutral

B1 Originality: Is the work relevant and novel?: Neutral

B2 Motivation: Does the problem considered have a sound motivation? All papers should clearly demonstrate the scientific interest of the results: Neutral

C1 Title: Is it adequate and appropriate for the content of the article?: Neutral

C2 Abstract: Does it contain the essential information of the article? Is it complete?: Neutral

C3 Diagrams, figures, tables and captions: Are they essential and clear?: Neutral C4 Text and mathematics: Are they brief but still clear? If you recommend shortening, please suggest (below at comments) what should be omitted: Neutral

C5 Conclusion: Does the paper contain a carefully written conclusion, summarising what has been learned and why it is interesting and useful?: Neutral

C6 References: Are the references in the correct format? Are all references mentioned in the text and cited chronologically?: Neutral