**Reviewer Report (Journal of Physics: Conference Series)**

**Manuscript Details**

Manuscript ID (Presentation ID): AP2-5

Manuscript title: Vibrational characteristics of a superconducting magnetic bearing employed for a prototype polarization modulator

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Keywords: Superconducting Magnetic Bearing, Levitation force, Spring characteristics

Date (reviewer) assigned: 2016.12.22

Date review returned: 2017.1.23

**A. Technical criteria**

1. Scientific merit:

Is the paper scientifically rigorous, accurate and correct? Yes  No

2. Clarity of expression:  
Are the author(s)’ ideas and discussion of concepts well communicated? Yes  No   
Is the manuscript easy to read? Yes  No

3. Suitable referencing:  
Do the author(s) make reference to the most recent and most appropriate work? (If no, please provide references in the “Comments and suggestions to the author(s)”) Yes  No

**B. Quality criteria**

1. Originality:

Is the work relevant and novel? Yes  No

2. Motivation (All papers should clearly demonstrate the scientific interest of the results):  
Does the problem considered have a sound motivation? Yes  No

3. Repetition:  
Have significant parts of the manuscript already been published? (If yes, please provide information on the previous publication in “Confidential comments to the editors”)   
 Yes  No

4. Length:  
Is the content of the work of sufficient scientific interest to justify its length? Yes  No

**C. Presentation criteria**

1. Title:  
Is it adequate and appropriate for the content of the article? Yes  No

2. Abstract:  
Does it contain the essential information of the article? Is it complete? Is it suitable for inclusion by itself in an abstracting service? Yes  No

3. Diagrams, figures, tables and captions:  
Are they essential and clear? Yes  No

4. Text and mathematics:  
Are they brief but still clear? Yes  No   
If you recommend shortening, please suggest what should be omitted.

5. Conclusion:  
Does the paper contain a carefully written conclusion, summarizing what has been learned and why it is interesting and useful? Yes  No

**D. Recommendation**

Publish the paper as is.

Publish the paper with minor revisions. (See comments to the authors for recommended revisions)

Publish the paper with major revisions. (See comments to the authors for recommended revisions)

Reject

**E. Comments and suggestions to the author(s)**

Please explain your opinion, guide revisions and describe your specific concerns.

* You should correct typo of first line of third paragraph in Introduction section.  
  “An superconducting magnetic bearing (SMB) is a contactless bearing [3]. it employs an..”
  1. Fixed.
* In figure 2 (a), hall measurement results have almost same values with laser gauge output. Is this a coincidence? You need to explain the relation between hall and laser data.
  1. This is just a coincidence. The lager gauge measures the actual position displacement of the rotor. The hall sensor measures the displacement of the magnetic field according to the position of the rotor magnet. We can’t compare their absolute values directly.
* I recommend you increase the font and figure size of figure 2 for readability.
  1. Fixed.