Response to the Editors:

Reviewer A:

1- the section  2.1 is very long, I suggest that the authors move the
section to appendix and provide a summary of the Rocha's model only. The
reader may lose interest and I can say there is significant interesting work
that is presented after this section.

*Response: Section has been shortened and some content has been moved to Appendix A.*

2-page 11 refers to experiment at DLR, as this analysis are based on this
experiment it is very important to add a picture of DLR setup and the panel
boundary condition. I know that you have referred to already published
paper, but a reader would not have immediate access to the reference papers
and following the rest of analysis becomes hard. It is important to mark the
points on the panel that analysis was done for (all the point on fig 3)

*Response: DLR Test Setup Images Added with locations of each test shown (Figure 4 and Figure 5)*

3- some of the work are based on comparison of the Rocha Berry model with FE
analysis, it is important to be sure that the FE analysis up to 1000Hz is
accurate enough for the purpose of this analysis. some wording need to be
added on the level of the detail that is included in the FE model, a picture
of the model and table of assumptions will be of significant interest

*Response: This model was previously defined by one of the authors, where all of the assumptions made are defined. This paper has been referenced for use by the reader however it was not a main point of study for this paper so it has only be referenced.*

4- piezo excitation, the same issue mentioned in point 3, the location of
piezo shall be indicated on the panel

 *Response: Locations of these tests can be seen in Figure 10.*

Reviewer B:

(1) While not stated in the abstract, it became apparent as I read through
the paper that the intent seemed to be to use the models to conduct
optimization studies and perhaps experimentally simulate the resulting
vibration response on a panel subjected to TBL pressure fluctuations.  I
think this should be briefly summarized in the abstract if that is indeed
the intended purpose.  One reason I mention this is because in the second
paragraph of the introduction, it mentions past work on wavenumber-domain
models being computationally intensive and "...not a suggested approach when
using recursive optimization routines or control algorithms, which are often
involved in the reproduction of these types of responses.".  To my
knowledge, the more sophisticated models and those implemented in commercial
software (e.g. SEA codes) are in fact based on wavenumber-frequency based
models.  However, if they are not suited to optimization studies or
experimental reproduction, as the authors suggest, I think it warrants
highlighting the intended purpose of these models a little more clearly by
making the statement in the abstract.  I would also suggest a reference to
this statement, since it does contradict my understanding somewhat.

*Response: Added this goal to the abstract.*

*The following was added to the introduction: These types of models tend to be very robust for a variety of complex experimental conditions however, this makes them overanalyze simplified experimental conditions causing more calculations to be performed per iteration of an optimization routine.*

 (2) Further into the introduction it is mentioned about reproducing the
vibration of a panel subjected to TBL excitation and relating this to the
case of evaluating model performance for the piezo-electric patch as a
method to achieve experimental simulation.  Therefore, again, I would
highlight this as an intended goal of this research.

*Response: Added this goal to the abstract*

(3) Section 2.2 typo, what should be Equations (20) and (21) are labeled (0)
and (1)

*Response: Corrected*

(4) For experimental validation, in particular for the point force (impact
hammer) and piezo-electric patch cases, I feel a better approach would be to
compare with measured FRF's

*Response: The authors have chosen to display all of the results on a scale of Acceleration PSD vs Frequency to provide a consistent approach of displaying the data. These Axes were chosen to allow the authors obtained data to be directly compared to that of previously published data. The experimental data obtained from the literature is displayed in the PSD domain.*