Answers on the review of Anonymous Referee #1

The authors are grateful for the perusal and important suggestions provided by the reviewer. All the suggestions have been taken into account and the manuscript has been changed accordingly.

–>THE VOIGHT MODEL. In general, any use of simple models is subject to serious grounding. Although the paper includes a lot of speculation and very good and useful arguments in favor of the Voight model and its applicability, the narration is sometimes puzzling. The Abstract reads: "These assumptions lead to Kelvin-Voight model of wave propagation, . . .", which makes a feeling that the use of this very model will be substantially grounded after. At the same time, introduction of the model appears at p. 4 l.5 as "e.g., Kelvin-Voight model, with . . . ", which gives a feeling that it's just a choice from a long row of models applicable to the problem. And then nothing is said about other alternatives! By the way, the paper is silent about "uniform distribution of strain" - an assumption important for applicability of the Voight model, contrary to the Maxwell model assuming a "uniform distribution of stress". Nothing is said about more extended capabilities provided by the Zener model. Testing the whole set of available models is obviously beyond the scope of a single paper, but due consideration of their basics from the point of view of their applicability is a must. I would also encourage the authors to be more cautious with terms: e.g. contrary to the wording from the above cited sentence of Abstract, the Voight model is basically NOT the "wave propagation model", but is a helpful means for modeling viscoelasticity under certain conditions. This closing remark smoothly leads us to

The authors would like to thank you very much for the remark about "wave propagation model". Kelvin-Voigt model is used in this paper to analyse energy dissipation during wave propagation. That has been changed throughout the paper. Regarding the selection of this model instead of others, e.g. Maxwell and Zener models, the explanation has been provided in the text, p.4. l.7.

–> THE USE OF ENGLISH. English is mostly OK except for some awkward sentences. Please proofread and perform the grammar check carefully. Just a few examples: (i) in the last sentence of p.1 the modifier of manner "in the presence of . . ." comes between the transitive verb "to create" and its direct object "an effect . . .", which makes it hard to read, (ii) "therein" would look much better than "there" in l.22 p.1, (iii) the use of "increasing damping" in l.15 of p.1 and then in similar cases is confusing in my point of view, (iv) the sentence "Consequently, ..." around l.15 p.4 lacks any expression of necessity I would expect (otherwise, I can't grasp the meaning). In general, I wouldn't recommend pricey editorial services, and encourage being more conservative and careful with the use of English.

(i) It has been changed

(ii) It has been changed

(iii) It has been changed

(iv) The word "Consequently" is needed to connect the sentence providing some explanation why the underdamped solution is appropriate and the sentence stating that it used for establishing the relationship between the damping coefficient and restitution coefficient.

–> PLEASE DELETE MISPRINTS!!! E.g.: Where are derivatives in the second order differential equation (1) and boundary conditions p.2 l.17?

The derivatives are represented by dots upon the function "*x*". One and two dots show the first and second derivatives, respectively. There has been also added a formula after Eq. (2) showing how to transform X' to $\dot{x}$ and vice versa.