This paper uses a unique method to study the influence of length effect on the stress measurement of steel strands. The results are analyzed through the theoretical derivation and experimental research on stress-frequency relationship of different lengths of steel strands, and the critical length of long and short steel strands is obtained. This manuscript is valuable and interesting.

Comments for the manuscript are given below.

(1) In introduction section, the authors should give more details, e.g. advantages and disadvantages, of previous studies to highlight the contribution of the present study.

(2) We have known length will have a significant effect on the stress detection of prestressed steel strands. Why the authors studied this topic again? The authors need to highlight the objective of the study.

(3) In Figs. 10-12, the results for the 1.2m strand present an opposite trend with the results for the 5, 10 and 15 strands. The authors may give the explanation (mechanism).

(4) Why the authors choose 1.2, 5, 10 and 15 m strands for study? The reviewer does not believe the four cases are enough to obtain an empirical model. 2.013 and 2.019m are questionable. More cases are recommended to verify the conclusion.

(5) The reviewer is confused with the result (1.2, -0.000120). Both frequency and stress are positive, how to get the negative value? The authors should explain.

(6) Please shorten the conclusion section.

(7) Line 344 ‘the median filter…’ The authors may explain why they use median values in analysis.

(8) Should the last sentence “Therefore, this paper ….. LC electromagnetic vibration method for stress detection of steel strands.” in the introduction be “Therefore, this paper ….. LC electromagnetic oscillation method for stress detection of steel strands.” (1.3. Electromagnetic Oscillation Method). Please confirm it.

(9) The application of the electromagnetic oscillation method to stress detection of prestressed steel strand is potentially an important demonstration of the technology. It would be interesting to know whether this method is suitable for stress detection of steel strands in concrete structures?

(10) There are typos and grammatical errors. For example, ‘the experimental system is composed as shown in Figure 6.’ can be ‘the experimental system is presented in Figure 6’. ‘3.2.2 The experimental devices and procedure of short steel strand’ should be ‘3.2.2 Experimental devices and procedure of short steel strand’.

A careful proofreading is recommended.

In summary, I recommend it for consideration of publication after revision.
(11) The authors may like to refer to the following papers published in Sensors.