Response to Reviewer 4 Comments

Point 1: The title is confusing to readers, it should be reformulated.

Response 1:. Thank you for noting that. We've changed "Numerical parametric study of Coda Wave Interferometry sensitivity to microcrack angle and length in a multiple scattering medium" to "Numerical parametric study of Coda Wave Interferometry sensitivity to microcrack change in a multiple scattering medium".

Point 2: The abstract needs more quantitative information on the results found.

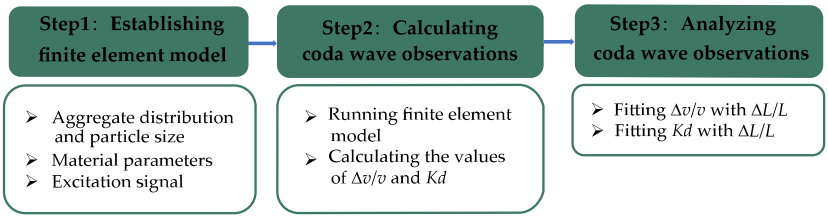
Response 2: The original manuscript has been improved. We've changed "In addition, it was found that the angle between the crack and the source/receiver was not necessary to monitor the development of the fracture" to "In addition, the nonlinear relationship between slope and angle can be fitted with a sinusoidal function".

Point 3: The authors can provide more evidence at the end of the introduction of the innovation and final quality of this paper compared to other studies already published.

Response 3: Thank you for your comments. The introduction part of the original manuscript of our paper did not write clearly the novelty and importance; In view of this, we have strengthened the introduction section to emphasize innovation. The innovation of this paper lies in the accurate control of the variables in the wake observation by means of finite element simulation, and the establishment of a numerical model for the problems that are difficult to be carried out in laboratory tests, so as to obtain the law of the change of coda wave in the case of a single crack. Some relevant literature has been added for comparison.(line89-96)

Point 4: A methodological flowchart must be inserted.

Response 4: Flowchart has been added.(line182)



Point 5: The results presented in Figure 8 should be further discussed by the authors.

Response 5: This part is the conjecture of the experimental observation phenomenon. We speculate that the change of crack angle and length causes the change of wave propagation path, which is amplified by the coda wave interferometry method and finally produces the phenomenon in Figure 9. In view of this, the original manuscript has been revised.(line328-329)

Point 6: The conclusion needs to be better explained, there are still points of doubt in the final document.

Response 6: We have revised the original manuscript to remove any misunderstandings and simplify the conclusion.(line344-362)