

# Peridynamics-Based Fracture Animation for Elastoplastic Solids

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## 1. Revision Summary

We have carefully revised our submission according to the suggestions of the associate editor. The major changes to the manuscript include (but not limited to):

1. Description of the damping models is added to the manuscript along with corresponding damping parameters in Table 1, which would be helpful to reproduce the results.
2. Detailed discussion for picking  $\delta$  values is included and the new beam demo is added to our final video. Here, we emphasize that the simulation plausibility is not very sensitive to the parameter  $\delta$ , and a value range from  $1.0\lambda$  to  $2.0\lambda$  is recommended. As for the seeming odd  $\delta$  values ( $1.34\lambda$ ,  $1.38\lambda$ ), these values are fine-tuned just to achieve our best-synchronized results with FEM. We additionally provide three more supplemental videos that use other values ( $1.0\lambda$ ,  $1.2\lambda$ ,  $1.3\lambda$ ), which show that the simulations are still physically plausible, but are less-synchronized with FEM compared to the fine-tuned results in our final video.
3. Discussion on pros and cons of our method compared with [PKA\*05] is included.

Please refer to our revised paper.

## References

- [PKA\*05] PAULY M., KEISER R., ADAMS B., DUTRÉ P., GROSS M., GUIBAS L. J.: Meshless animation of fracturing solids. *ACM Trans. Graph.* 24, 3 (July 2005), 957–964. [1](#)