

# Accepted Manuscript

Optimization of elastodynamic finite integration technique on Intel Xeon Phi Knights  
Landing processors

William C. Schneck III, Elizabeth D. Gregory, Cara A.C. Leckey

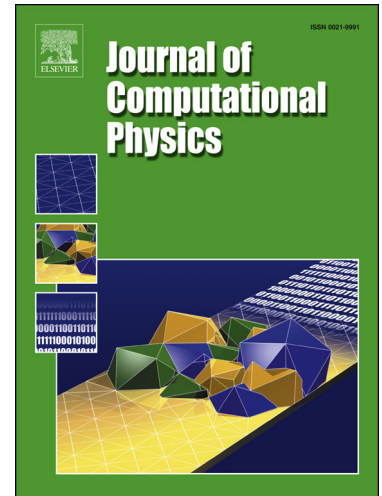
PII: S0021-9991(18)30511-4  
DOI: <https://doi.org/10.1016/j.jcp.2018.07.049>  
Reference: YJCPH 8174

To appear in: *Journal of Computational Physics*

Received date: 7 March 2018  
Accepted date: 24 July 2018

Please cite this article in press as: W.C. Schneck III et al., Optimization of elastodynamic finite integration technique on Intel Xeon Phi Knights Landing processors, *J. Comput. Phys.* (2018), <https://doi.org/10.1016/j.jcp.2018.07.049>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## **Highlights**

- Elastodynamic algorithm is optimized on Knights Landing hardware.
- Memory layout and vectorization schemes are described.
- Scalability performance and roofline analysis are reported.
- An application case for ultrasound simulation in materials is presented.

Download English Version:

<https://daneshyari.com/en/article/6928504>

Download Persian Version:

<https://daneshyari.com/article/6928504>

[Daneshyari.com](https://daneshyari.com)