

# Accepted Manuscript

Interaction of Highly Nonlinear Solitary Waves with Rigid Polyurethane Foams

Andreas Schiffer , Dongwon Lee , Eunho Kim , Tae-Yeon Kim

PII: S0020-7683(18)30195-1  
DOI: [10.1016/j.ijsolstr.2018.05.010](https://doi.org/10.1016/j.ijsolstr.2018.05.010)  
Reference: SAS 9990



To appear in: *International Journal of Solids and Structures*

Received date: 29 January 2018  
Revised date: 23 April 2018  
Accepted date: 11 May 2018

Please cite this article as: Andreas Schiffer , Dongwon Lee , Eunho Kim , Tae-Yeon Kim , Interaction of Highly Nonlinear Solitary Waves with Rigid Polyurethane Foams, *International Journal of Solids and Structures* (2018), doi: [10.1016/j.ijsolstr.2018.05.010](https://doi.org/10.1016/j.ijsolstr.2018.05.010)

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**

- Interaction of solitary waves with rigid PU foam are numerically/experimentally investigated.
- Coupled discrete/finite element method is efficient for simulating the chain-foam interactions.
- Reflected solitary waves are sensitive to the elasto-plastic behavior of PU foam.
- Time delay and amplitude of the reflected solitary wave contain important information of elasto-plastic properties.
- A granular sensor based on solitary wave shows great potential to evaluate the mechanical properties of PU foam.

Download English Version:

<https://daneshyari.com/en/article/11016541>

Download Persian Version:

<https://daneshyari.com/article/11016541>

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