

Accepted Manuscript

Nonlinear secondary resonance of nanobeams under subharmonic and superharmonic excitations including surface free energy effects

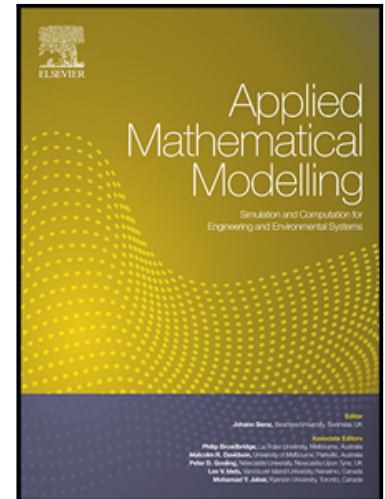
Ali Sarafraz , Saeid Sahmani , Mohammad Mohammadi Aghdam

PII: S0307-904X(18)30455-4
DOI: <https://doi.org/10.1016/j.apm.2018.09.013>
Reference: APM 12465

To appear in: *Applied Mathematical Modelling*

Received date: 13 September 2017
Revised date: 22 August 2018
Accepted date: 6 September 2018

Please cite this article as: Ali Sarafraz , Saeid Sahmani , Mohammad Mohammadi Aghdam , Nonlinear secondary resonance of nanobeams under subharmonic and superharmonic excitations including surface free energy effects, *Applied Mathematical Modelling* (2018), doi: <https://doi.org/10.1016/j.apm.2018.09.013>



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

- Size-dependent nonlinear hard oscillation of nanobeams
- Surface free energy effects on the nonlinear secondary resonance of nanobeam with various end supports
- Size-dependent frequency-response of a nanobeam for the both of subharmonic and superharmonic excitations
- Size-dependent amplitude-response of a nanobeam for the both of subharmonic and superharmonic excitations

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/11026487>

Download Persian Version:

<https://daneshyari.com/article/11026487>

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