

Accepted Manuscript

Nonlinear dynamics of straight fluid-conveying pipes with general boundary conditions and additional springs and masses

T. Zhang , H. Ouyang , Y.O. Zhang , B.L. Lv

PII: S0307-904X(16)30198-6
DOI: [10.1016/j.apm.2016.03.050](https://doi.org/10.1016/j.apm.2016.03.050)
Reference: APM 11118



To appear in: *Applied Mathematical Modelling*

Received date: 20 December 2014
Revised date: 3 February 2016
Accepted date: 31 March 2016

Please cite this article as: T. Zhang , H. Ouyang , Y.O. Zhang , B.L. Lv , Nonlinear dynamics of straight fluid-conveying pipes with general boundary conditions and additional springs and masses, *Applied Mathematical Modelling* (2016), doi: [10.1016/j.apm.2016.03.050](https://doi.org/10.1016/j.apm.2016.03.050)

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

- Presents new nonlinear equations of motions based on improved Fourier series method.
- Can handle general boundary conditions and any number of attached masses and springs.
- Has been validated using different cases with several supports and viscous damping.
- Finds and analyses rich nonlinear dynamic behaviour.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/5471328>

Download Persian Version:

<https://daneshyari.com/article/5471328>

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