## **Accepted Manuscript**

# AN EQUIVALENT MOVING FORCE MODEL FOR CONSIDERATION OF HUMAN-STRUCTURE INTERACTION

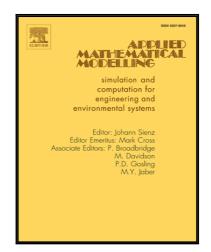
Ehsan Ahmadi, Colin C. Caprani, Amin Heidarpour

PII: \$0307-904X(17)30434-1 DOI: 10.1016/j.apm.2017.06.042

Reference: APM 11846

To appear in: Applied Mathematical Modelling

Received date: 17 October 2016 Revised date: 8 May 2017 Accepted date: 26 June 2017



Please cite this article as: Ehsan Ahmadi , Colin C. Caprani , Amin Heidarpour , AN EQUIVALENT MOVING FORCE MODEL FOR CONSIDERATION OF HUMAN-STRUCTURE INTERACTION, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.06.042

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.

### ACCEPTED MANUSCRIPT

#### **Highlights**

- Human-structure interaction (HSI) is incorporated into a moving force model.
- A simplified analytical approach is developed for determining the equivalent system properties.
- A more comprehensive numerical approach is used to determine the optimum equivalent system properties.
- Empirical expressions are proposed to incorporate stochastic HSI into a moving force model.
- The approach means that accurate vibration assessment can be performed with currently available commercial engineering software.

#### Download English Version:

## https://daneshyari.com/en/article/5470808

Download Persian Version:

https://daneshyari.com/article/5470808

<u>Daneshyari.com</u>