Accepted Manuscript

A Perturbation Approach on Buckling and Postbuckling of Circular Rings under Nonuniform Loads

Eyas Azzuni , Sukru Guzey

PII: S0020-7403(17)33027-8
DOI: 10.1016/j.ijmecsci.2018.01.004
Reference: MS 4122

To appear in: *International Journal of Mechanical Sciences*

Received date: 26 October 2017
Revised date: 27 December 2017
Accepted date: 6 January 2018

Please cite this article as: Eyas Azzuni , Sukru Guzey , A Perturbation Approach on Buckling and Postbuckling of Circular Rings under Nonuniform Loads, *International Journal of Mechanical Sciences* (2018), doi: 10.1016/j.ijmecsci.2018.01.004

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

- Investigation of large deformations behavior of thin elastic circular rings under non-uniform pressure.
- Non-linear deformation behavior of rings found with a perturbation technique.
- Imperfection in the loading expression added to match the first buckling mode.
- A finite Fourier series was used to approximate the curvature ratio function.
- Double symmetric loading pattern was considered.

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/7173854

Download Persian Version:

https://daneshyari.com/article/7173854

Daneshyari.com