Accepted Manuscript

Minimization of Inhomogeneous Biharmonic Eigenvalue Problems

Di Kang, Chiu-Yen Kao

 PII:
 S0307-904X(17)30453-5

 DOI:
 10.1016/j.apm.2017.07.015

 Reference:
 APM 11865

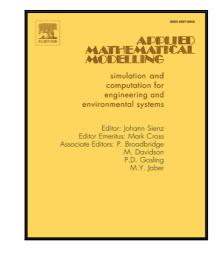
To appear in:

Applied Mathematical Modelling

Received date:14 September 2016Revised date:13 June 2017Accepted date:3 July 2017

Please cite this article as: Di Kang, Chiu-Yen Kao, Minimization of Inhomogeneous Biharmonic Eigenvalue Problems, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.07.015

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

- Minimization of the first eigenvalue of biharmonic equations is studied.
- The optimal bang-bang coefficient function is found via a rearrangement algorithm.
- The bifurcation of local optimizers is investigated via an asymptotic analysis.
- Numerical simulations on various domains show different optimal scenarios.
- A symmetric breaking behavior is also observed numerically on annular domains.

A CERTIN

Download English Version:

https://daneshyari.com/en/article/5470812

Download Persian Version:

https://daneshyari.com/article/5470812

Daneshyari.com