

Scopus - Document details

Search Sources Alerts Lists Help Register Login



## Document details

Back to results | < Previous 56 of 60 Next >

View at Publisher | Export | Download | Add to List | More...

Earthquake Engineering and Structural Dynamics  
Volume 32, Issue 2, February 2003, Pages 173-185

### Optimal distribution of linear control intensity over the frequency range (Article)

Corbi, O.  

Dept. of "Scienze Della Costruzione", University of Naples, Via Claudio 21, Napoli 09125, Italy

[View references \(14\)](#)

**Abstract**

In this paper, a control strategy for structural systems is proposed and developed in the frequency domain. The algorithm is substantially based on a linear derivative feedback and a convolution of the control parameter, whose distribution in the frequency field is chosen in such a manner as to comply with the requirements of an *ad hoc* formulated constrained optimum problem, with the response data monitored until the instant of control action application. Some numerical testing is carried out by referring to given recorded accelerograms, showing a good performance of the proposed approach. © 2002 John Wiley & Sons, Ltd.

**Author keywords**

Frequency distribution; Harmonic control; Low-energy demand

**Indexed keywords**

Engineering controlled terms: Algorithms; Data structures; Feedback; Frequencies  
Engineering uncontrolled terms: Structural systems  
Engineering main heading: Earthquakes  
GEODASE Subject Index: algorithm; earthquake; frequency analysis; harmonic analysis; structural response

ISSN: 00988847 CODEN: LIEEB Source Type: Journal Original language: English  
DOI: 10.1002/eqe.211 Document Type: Article

**Cited by 1 document**

Behavior of Secondary Masonry Structural Elements using a Finite Element No Tension Analysis  
Baratta, A., Corbi, O. (2015) *Civil-Comp Proceedings*  
[View details of this citation](#)

Inform me when this document is cited in Scopus:  
[Set citation alert](#) [Set citation feed](#)

**Related documents**

Modified bang-bang control law for structural control implementation  
Hu, Z., Soong, T.T. (1996) *Journal of Engineering Mechanics*

Independent harmonic control for structural engineering  
Baratta, A., Corbi, O. (2002) *Journal of Earthquake Engineering*

Recent structural applications of active control technology  
Soong, T.T., Reinhorn, A.M., Aizawa, S. (1994) *Journal of Structural Control*

[View all related documents based on references](#)

Find more related documents in Scopus based on:  
[Author](#) [Keywords](#)

Wiley Online Library

By continuing to browse this site you agree to us using cookies as described in [About Cookies](#)

Log in / Register

Wiley Editing Services Translation Services **WILEY**

Ensure your manuscript is ready for submission

Go to old article view

Earthquake Engineering & Structural Dynamics [Explore this journal >](#)

Research Article

## Optimal distribution of linear control intensity over the frequency range

Ottavia Corbi 

First published: 12 November 2002 [Full publication history](#)  
DOI: 10.1002/eqe.211 [View/save citation](#)  
Cited by: 0 articles [Citation tool](#)

[PDF](#) [Info](#)

[View Issue TOC](#)  
Volume 32, Issue 2  
February 2003  
Pages 173-185

**Abstract**

In this paper, a control strategy for structural systems is proposed and developed in the frequency domain. The algorithm is substantially based on a linear derivative feedback and a convolution of the control parameter, whose distribution in the frequency field is chosen in such a manner as to comply with the requirements of an *ad hoc* formulated constrained optimum problem, with the response data monitored until the instant of control action application. Some numerical testing is carried out by referring to given recorded accelerograms, showing a good performance of the proposed approach. Copyright © 2002 John Wiley Sons, Ltd.

Advertisement

Stay up-to-date on your article's impact

