

Scopus - Document details

Search Sources Alerts Lists Help Register Login

Document details

Back to results | < Previous 35 of 60 Next >

Proceedings of the 13th International Conference on Civil, Structural and Environmental Engineering Computing
2011, 13p
13th International Conference on Civil, Structural and Environmental Engineering Computing, CC 2011; Chania, Crete, Greece; 6 September 2011 through 9 September 2011; Code 89029

The displacement approach in No-Tension structures (Conference Paper)

Baratta, A., Corbi, O.

Department of Structural Engineering, University of Naples Federico II, Italy

Abstract

The paper focuses on the introduction of a special incremental formulation aimed at finally possibly treating the dynamics of masonry-like structures and overpassing numerical problems that may arise during the static analyses under ordinary loads. The formulation is initially set up with reference to NT bodies, and, therein, specialized to arched structures, showing its potential for successfully pursuing the above mentioned objectives. © Civil-Comp Press, 2011.

Author keywords
Incremental solutions; Masonry structures; No tension material; Variable rate

Indexed keywords
Arched structures; Incremental formulation; Masonry structures; No tension material; Numerical problems; Variable rate
Engineering controlled terms: Computer aided engineering; Masonry materials
Engineering main heading: Environmental engineering

ISBN: 978-19050845-4 Source Type: Conference Proceeding Original language: English
Document Type: Conference Paper

Cited by 0 documents

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

Related documents

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

Metrics

2 Mendeley Readers 33TH PERCENTILE

[View all metrics](#)

http://www.ccsources.info/ccp/paper.html?id=6402

Civil-Comp Press - Publication... Computational Technology...

Amazon.it - Compra on line Fine sessione

not logged in - login

Computational & Technology Resources
an online resource for computational, engineering & technology publications

Front Page
Browse
CCP
CSETS
CTR
DIRT
Authors
Search
Purchase Guide
FAQ
Contact us

Civil-Comp Proceedings
ISSN 1759-3433

CCP: 96
PROCEEDINGS OF THE THIRTEENTH INTERNATIONAL CONFERENCE ON CIVIL, STRUCTURAL AND ENVIRONMENTAL ENGINEERING COMPUTING

Edited by: B.H.V. Topping and Y. Tsoupanakis

Paper 55

The Displacement Approach in No-Tension Structures

A. Baratta and O. Corbi
Department of Structural Engineering, University of Naples "Federico II", Italy
doi:10.4203/ccp.96.55
purchase the full-text of this paper

Full Bibliographic Reference for this paper

A. Baratta, O. Corbi, "The Displacement Approach in No-Tension Structures", in B.H.V. Topping, Y. Tsoupanakis, (Editors), "Proceedings of the Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing", Civil-Comp Press, Stirlingshire, UK, Paper 55, 2011. doi:10.4203/ccp.96.55

Keywords: masonry structures, no tension material, incremental solutions, variable rate.

Summary

This paper focuses on the introduction of a special incremental formulation to treat the dynamics of masonry-like structures and numerical problems that may arise during the static analyses under ordinary loads. The paper deals with bodies whose constitutive material is unable to resist tensile stress (no-tension or NT material [1]) pointing to the specialization of some theorems formulated many years ago by Capurso [2,3] for incremental solutions of two and three-dimensional elastic-plastic problems. Some extremum properties of a suitably defined functional of the response variables, verified within each time step of the loading process are identified.

Despite a strong similarity between the plastic and the NT behaviour, the need for a re-formulation of the theorems is prompted by the circumstance that the fracture multipliers' rates are not semi-positive definite, at least in contrast, it happens for the plastic case. For non-