

Accepted Manuscript

High-Resolution Non-Gradient Topology Optimization

David Guirguis, William W. Melek, Mohamed F. Aly

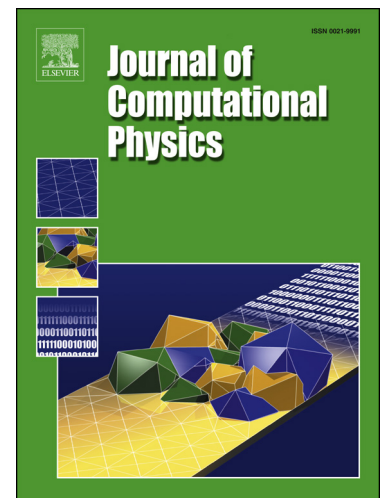
PII: S0021-9991(18)30403-0
DOI: <https://doi.org/10.1016/j.jcp.2018.06.025>
Reference: YJCPH 8074

To appear in: *Journal of Computational Physics*

Received date: 13 February 2018
Revised date: 14 May 2018
Accepted date: 7 June 2018

Please cite this article in press as: D. Guirguis et al., High-Resolution Non-Gradient Topology Optimization, *J. Comput. Phys.* (2018), <https://doi.org/10.1016/j.jcp.2018.06.025>

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.



Highlights

- The potential of the method to relax the limitations of BBTO is explored.
- Examples with fine-meshing are solved by a reduced computational cost.
- The topological attainability of the proposed method is studied by image-matching.
- Physical problems are solved, including, compliance, heat transfer and composites.
- Comparisons are carried out with SIMP and gradient level-set methods.

Download English Version:

<https://daneshyari.com/en/article/6928577>

Download Persian Version:

<https://daneshyari.com/article/6928577>

[Daneshyari.com](https://daneshyari.com)