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Large-scale stochastic topology optimization using adaptive mesh refinement and coarsening through a two-level parallelization scheme

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PII: S0045-7825(18)30423-7
DOI: https://doi.org/10.1016/j.cma.2018.08.028
Reference: CMA 12042

To appear in: *Comput. Methods Appl. Mech. Engrg.*

Received date : 13 April 2018
Revised date : 24 July 2018
Accepted date : 17 August 2018

Please cite this article as: J. Baiges, J. Martínez-Frutos, D. Herrero-Pérez, F. Otero, A. Ferrer, Large-scale stochastic topology optimization using adaptive mesh refinement and coarsening through a two-level parallelization scheme, *Comput. Methods Appl. Mech. Engrg.* (2018), https://doi.org/10.1016/j.cma.2018.08.028

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Highlights

- A parallel processing scheme for stochastic topology optimization is proposed to profit from parallel computation on distributed memory systems.
- The proposed algorithm exploits adaptive mesh refinement and parallelism in parallel distributed memory systems.
- The proposed strategy enables to solve large scale stochastic topology optimization problems (with up to hundreds of millions of elements).
- Good scalability up to 20.000 processors, yielding an efficient tool for engineering purposes.

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