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NEW TRENDS IN TOPOLOGY OPTIMIZATION

INVERSE PROBLEMS, OPTIMIZATION AND DESIGN (1300)

EMILIO C. N. SILVA[*], HYUNSUN ALICIA KIM[†], GLAUCIO H. PAULINO[**] AND WILFREDO MONTEALEGRE-RUBIO[††]

[*]Department of Mechatronics and Mechanical Systems Engineering, Universidade de São Paulo
Av. Prof. Mello Moraes, 2231 - Cidade Universitária, São Paulo - SP - 05508-900, Brazil.
ecnsilva@usp.br

[†]Structural Engineering Department, University of California, San Diego
9500 Gilman Drive, San Diego, CA 92093, USA
hak113@eng.ucsd.edu

[**]School of Civil and Environmental Engineering, Georgia Tech - Georgia Institute of Technology
Atlantic Drive NW, Atlanta, GA 30332-0355, USA
glaucio.paulino@ce.gatech.edu

[††] Department of Mechanical Engineering, Faculty of Mines, Universidad Nacional de Colombia
Carrera 64 No. 63 – 120, Núcleo el Río, Bloque 04, oficina 218, 050034. Medellín
wmontealegrer@unal.edu.co

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ABSTRACT

This mini-symposium aims to bring together researchers working on various aspects of topology optimization applied to fluids, solids and structures. In particular, we are interested in recent advances in topology optimization. Suggested topics include, but are not limited to:

* Novel and efficient topology optimization algorithms

* New methods to handle manufacturing, stress and other constraints

* Exact solutions to topology optimization problems

* New methods to solve multi-objective topology optimization problems

* Recent advances in reliability-based topology optimization (RBTO)

* Efficient solution of industrial large-scale topology optimization problems

* Inclusion of microstructure in topology predictions

* Recent advances in topology optimization applied to multi-physics problems

* Exploiting high-performance computing in topology optimization considering parallelism by CPU and/or GPU.

* New methods of adaptive mesh refinement in topology optimization

* Multiscale topology optimization

* Topology optimization applied to fluid problems