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ADVANCES IN GEOMETRICAL MODEL GENERATION BASED ON SHAPE AND TOPOLOGY OPTIMIZATION TOOLS

A. FERRER [†], E. NADAL[††], J.M. NAVARRO-JIMÉNEZ[††], J. MARTÍNEZ-FRUTOS[†††], J.J. RÓDENAS[††]

[†] Centre internacional de mètodes numèrics a l'enginyeria
Universitat Politècnica de Catalunya
C/ Gran Capitán S/N UPC Campus Nord, Edifici C1, 08034 Barcelona, Spain
aferrer@cimne.upc.edu

[††] Instituto de Investigación en Ingeniería Mecánica y Biomecánica,
Universitat Politècncia de València
Camino de Vera, s/n. 46022 Valencia, Spain
ennaso, jonaji, jjrodena @upv.edu.es

[†††] Universidad Politécnica de Cartagena
Pza. del Cronista Isidoro Valverde, 30202 Cartagena, Spain
jesus.martinez@upct.es

ABSTRACT

Shape and topology optimization tools have revolutionized the way engineers and researchers approach the design and analysis of complex structures. This mini-symposium will delve into the last contributions of these optimization tools in the field of geometrical model generation.

This session aims to cover a range of topics in the field of shape, topology and material optimization, including new optimization methodologies, topological derivatives, homogenization, material desing, case studies demonstrating their practical applications, challenges associated with computational cost, combination with Machine Learning tools to improve the capabilities of these techniques, etc. This mini-symposium aims to foster collaboration and knowledge exchange, ultimately advancing the state-of-the-art in geometrical model generation. Attendees will gain insights into the latest research trends, practical implementation strategies, and future directions in this rapidly evolving field.