

NEW TRENDS IN SHAPE AND TOPOLOGY OPTIMIZATION

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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 design, 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.