EVOLUTIONARY AND DETERMINISTIC METHODS FOR DESIGN, OPTIMIZATION AND CONTROL IN ENGINEERING AND SOCIETAL APPLICATIONS

1300: INVERSE PROBLEMS, OPTIMIZATION AND DESIGN

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ABSTRACT

This mini symposium aims at bringing together experts from universities, research institutions and industries developing or applying evolutionary and deterministic methods in optimization of design on engineering and societal applications. It is open to everybody who intends to present recent and original results on any of the following algorithmic topics and/or applications areas (or other related with).

Algorithmic topics include: meta heuristics and evolutionary algorithms (including differential evolution, particle swarm optimization, etc.); multi-objective evolutionary algorithms and constraint handling techniques; adjoint based and one-shot methods; hybrid optimisation methods (gradient based methods, combinatorial optimization methods, memetic algorithms); game strategies; parallel and distributed evolutionary algorithms; (big) data analysis and machine learning.

Applications areas include: aeronautics; automotive; bio engineering and medicine; CAD and 3D/4D manufacturing; civil and structural engineering; energy; environment; offshore, coastal and marine engineering; smart materials and structures; social sciences and politics; telecommunications; transport and logistics,…

REFERENCES

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