applied sciences

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 6.1

New Insights into Multidisciplinary Design Optimization

Guest Editors:

Dr. Mathieu Balesdent
ONERA-The French Aerospace Lab, 91120 Palaiseau, France

Dr. Loïc Brevault
ONERA-The French Aerospace Lab, 91120 Palaiseau, France

Deadline for manuscript submissions:
closed (20 November 2024)

Message from the Guest Editors

In the field of complex system engineering (e.g. aerospace, automotive, energy, civil engineering), designers must manage increasingly challenging requirements. System specifications are narrowing due to factors such as safety regulations, environmental constraints, and cost considerations. Development timelines are contracting, and the imperative to establish system performance quickly and with sufficient accuracy adds another layer of complexity. The design of complex systems involves a multidisciplinary process that couples various domains, including aerodynamics, propulsion, structures, electric/hydraulic systems, and guidance, navigation, and control. Each of these areas encompasses distinct groups of highly skilled experts and relies on advanced high-fidelity simulation models.

To face these challenges, multidisciplinary design optimization has become a standard for apprehending the complexity of process design. This Special Issue focuses on diverse areas, including advancements in surrogate modeling, multidisciplinary design analysis and optimization, uncertainty quantification, dimension reduction, multifidelity modeling, and machine learning.

applied sciences

IMPACT FACTOR 2.5

CITESCORE 6.1

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (Fluid Flow and Transfer Processes)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
𝕏@Applsci