



ARTISTE2025

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Special Session Title:

Analysis and Design of Shell and Spatial Structures

Organizers

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Abstract

Shell and spatial structures are representative of some of the most efficient structural systems in which the optimized use of materials is combined with effective structural forms. The continuing development of analysis methods, design approaches and construction techniques of shell and spatial structures has resulted in an increasing interest to engineers, architects, and builders.

The Special Issue will be devoted to the design, modelling, analysis, construction, and other aspects of the technology of all types of shell and spatial structures. These may include, but are not limited to:

- Tension and membrane structures
- Framed and lattice structures
- Gridshells and active-bending structures
- Shell roofs
- Tensegrity structures
- Pneumatic and inflatable structures
- Active and deployable structures
- Concrete
- Metal
- Masonry
- Timber
- Bio-based
- Spatial structures.

The topics of the Special Issue include experimental and theoretical studies, analysis methods and approaches regarding their design, computational form finding, structural optimization, manufacturing, testing and maintenance.



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