WCSMO12

Abstract Submission Form

Please use this form to submit your abstract. Fill out this form using your PDF viewer (works best with Adobe Acrobat Reader) and send the saved file to the following email address: **abstract@wcsmo12.org**

Abstract Submission

General Information

Submission Title:

Submission Type: ◉ Paper ○ Poster

Content

Please paste the text of your abstract in the field below (maximum length of 2000 characters):

Authors

First Author		**Second Author** *(optional)*	
First Name:		First Name:	
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Third Author *(optional)*		**Fourth Author** *(optional)*	
First Name:		First Name:	
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First Name:		First Name:	
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Organization:		Organization:	
City:		City:	
Country:		Country:	
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Decision Matrix

On the next page you find the decision matrix. The different topics are sorted in 5 principal categories. Select the topics of your contribution with the following scheme:

- You have 5 ticks
- Maximal 3 ticks per topic
- Ticks in different categories are necessary, minimum in 2 categories
- Minimal one topic with 2 ticks

Examples

☑☑☑	*desired topic*	☑☑☑	*desired topic*	☑☑☐	*desired topic*
☑☑☐	*alternative*	☑☐☐	*topic for finer structuring*	☑☐☐	*topic for finer structuring*
☐☐☐		☑☐☐		☑☐☐	*topic for finer structuring*
☐☐☐		☐☐☐		☑☐☐	*topic for finer structuring*
☐☐☐		☐☐☐		☐☐☐	

Category 1: General approaches and strategies

☐☐☐ Multi-disciplinary optimization
☐☐☐ Multi-objective optimization
☐☐☐ Design of Experiments and surrogate models (meta-models)
☐☐☐ Uncertainty and robust design
☐☐☐ Sensitivity analysis
☐☐☐ Parameter identification
☐☐☐ Dimensionality reduction
☐☐☐ Geometry modelling aspects
☐☐☐ General aspects of single-objective optimization

Category 2: Optimization algorithms

☐☐☐ Optimization algorithms: local mathematical methods
☐☐☐ Optimization algorithms: optimality criteria
☐☐☐ Optimization algorithms: global methods (e.g. evolutionary algorithms)
☐☐☐ Optimization algorithms: Engineering rule based or engineering rule supported

Category 3: Structural optimization

☐☐☐ Sizing
☐☐☐ Fibers and composites optimization
☐☐☐ Shape optimization
☐☐☐ Topology optimization with density methods
☐☐☐ Topology optimization with level set methods
☐☐☐ Topology optimization with other methods

Category 4: Optimization with emphasis on particular physics model

☐☐☐ Considering static and quasi-static load-cases (compliance and stress)
☐☐☐ Considering non-linear effects (e.g. material, geometric, contact)
☐☐☐ Considering dynamic load-cases
☐☐☐ Considering acoustic load-cases
☐☐☐ Considering crash load-cases
☐☐☐ Considering fatigue/durability/damage
☐☐☐ Considering piezoelectricity, magnetic and electrical fields
☐☐☐ Considering special other disciplines
☐☐☐ Including fluid simulation
☐☐☐ Including manufacturing
☐☐☐ Integration of material models (micro-/nano-structures)
☐☐☐ Considering multi-physics, multi-disciplinary

Category 5: Optimization focusing on particular industrial applications

☐☐☐ Automotive
☐☐☐ Aircraft
☐☐☐ Machines
☐☐☐ Civil engineering
☐☐☐ Wind energy systems
☐☐☐ Medicine
☐☐☐ Electronics
☐☐☐ others