

EngOpt2026



7th INTERNATIONAL CONFERENCE
ON ENGINEERING OPTIMIZATION

16 > 18 September 2026

INSTITUTO SUPERIOR TÉCNICO | LISBOA | PORTUGAL

CONFERENCE PROGRAM

Edited by:

Hélder Rodrigues, Emilio Nelli Silva, Aurélio Araújo, Carlos Quental,
Filipa Moleiro, João Folgado, José Miranda Guedes, José Aguilar Madeira

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Title:

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EngOpt2026 | 7th INTERNATIONAL CONFERENCE ON ENGINEERING OPTIMIZATION

Edited by:

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September 2026

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WELCOME

On behalf of the **EngOpt2026** organizing committee, we are pleased to welcome you to Lisbon for the **7th International Conference on Engineering Optimization**, held at Instituto Superior Técnico of Universidade de Lisboa.

The main goal of the **EngOpt** conference series is to periodically bring together engineers, applied mathematicians, and computer scientists working on research, development, and practical applications of optimisation methods in all engineering disciplines, as well as on the development of basic techniques in this field.

The purpose of this conference series is to provide a platform for scientists and engineers to meet, discuss current research, new concepts, and ideas, and establish opportunities for future collaborations in all aspects of Engineering Optimization.

By promoting a welcoming atmosphere for discussion and exchange of ideas, we expect that new paths for research will be stimulated and promoted, and new collaborations can be initiated.

We hope that this **7th International Conference on Engineering Optimization** will have a significant impact on research across all topics included in its programme.

We want to express our appreciation to all members of the committees involved in the preparation of this Conference, to all the staff managing the various aspects of the event, and to all the contributing authors and participants who will ensure the Conference's success.

We hope that all of you feel rewarded for your participation in **EngOpt2026**.

Yours sincerely

EngOpt2026 Organizing Committee



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Organization

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Organization

International Scientific Committee

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Conference Information

Endorsed by

APMTAC

Portuguese Association of Theoretical, Applied and Computational Mechanics

ISSMO

International Society for Structural and Multidisciplinary Optimization

ABMEC

Brazilian Association of Computational Methods in Engineering

Conference Venue

The 7th International Conference on Engineering Optimization (**EngOpt2026**) takes place in Instituto Superior Técnico (IST) Congress Center, situated at the Civil Engineering Building (Pavilhão de Civil) with the address:

Congress Center (Civil Engineering Building)
Instituto Superior Técnico
Av. Rovisco Pais 1
1049-001 Lisboa

Secretariat Open Hours

- Tuesday, 15 September 2026 > 16:00 - 18:00
 - Wednesday, 16 September 2026 > 08:00 - 18:00
 - Thursday, 17 September 2026 > 08:30 - 18:00
 - Friday, 18 September 2026 > 08:30 - 13:00
- Congress Center (Civil Engineering Building) Floor -1

Certificate of Participation

Certificates will be sent by e-mail after the conference upon request to: engopt2026@tecnico.ulisboa.pt

Name Badges

Please use your name badge at all times, including technical sessions, lunches and social events.

Coffee Breaks

The coffee breaks will take place in the hall -2 (2nd Basement) of the conference center (see map of the conference center) and will be open to all participants. Kindly wear your name badge.

Lunches

Lunch will be served in Hall -2 (Second Basement) of the conference center (see the conference center map) and will be available to all participants. A selection of lunch options will be provided each day, including a vegetarian option. Please wear your name badge to access the lunch area.

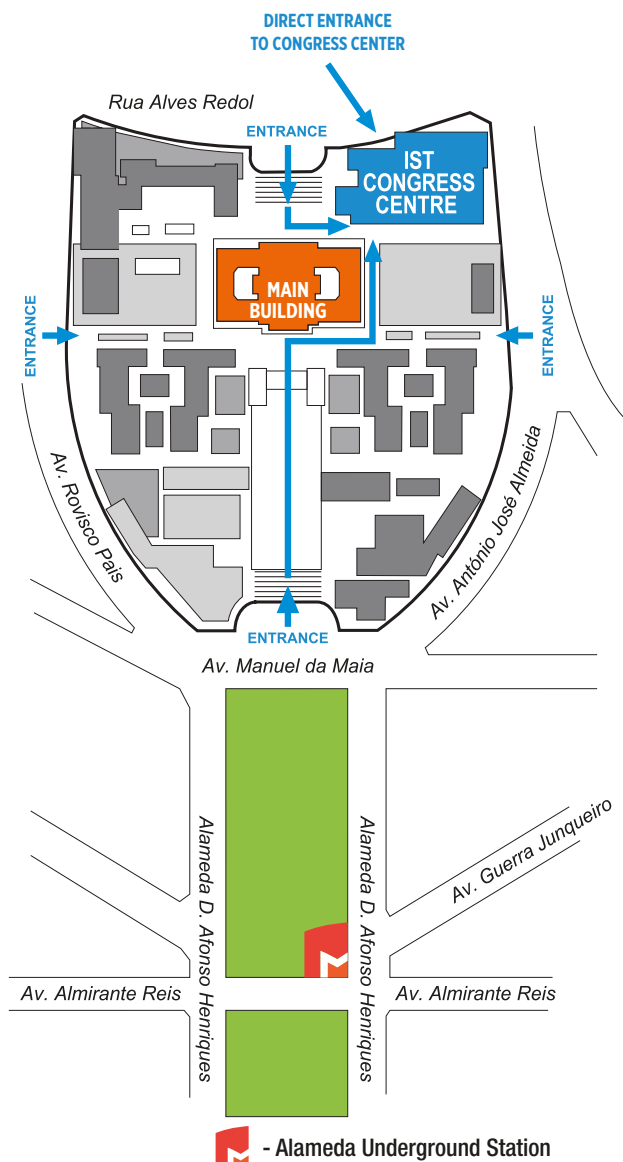


PLANT OF INSTITUTO SUPERIOR TÉCNICO

With the location of the Congress Centre



- Saldanha Underground Station

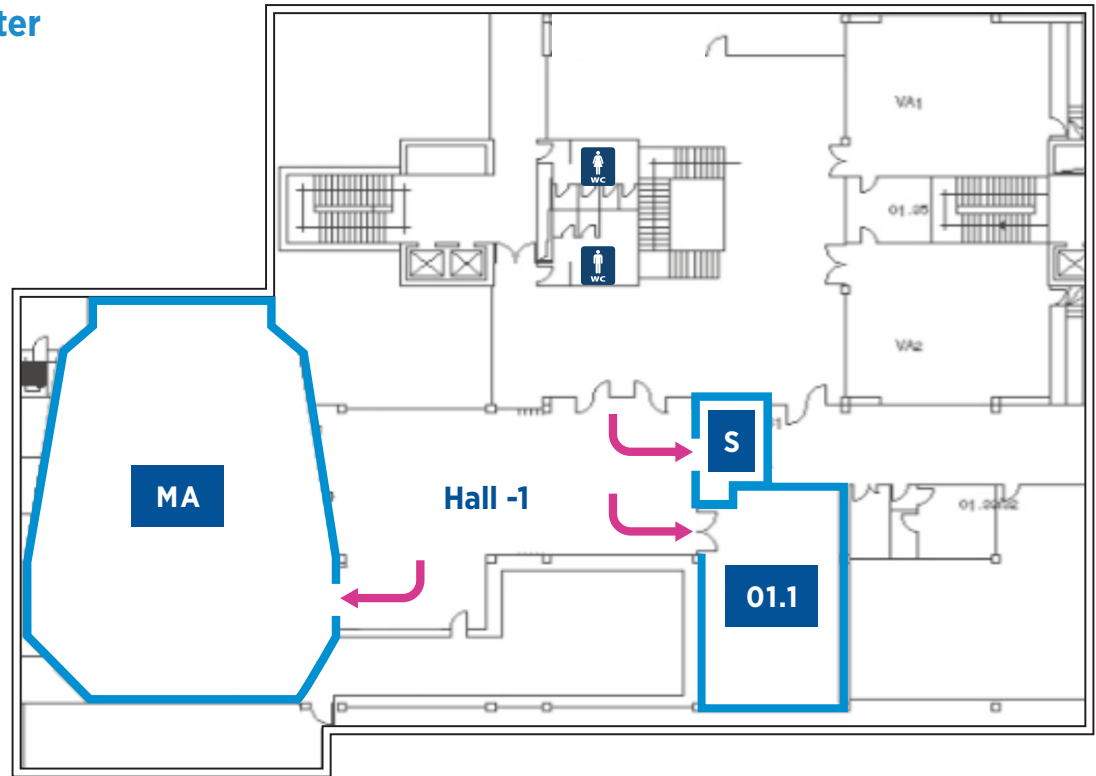


- Alameda Underground Station

Conference Information

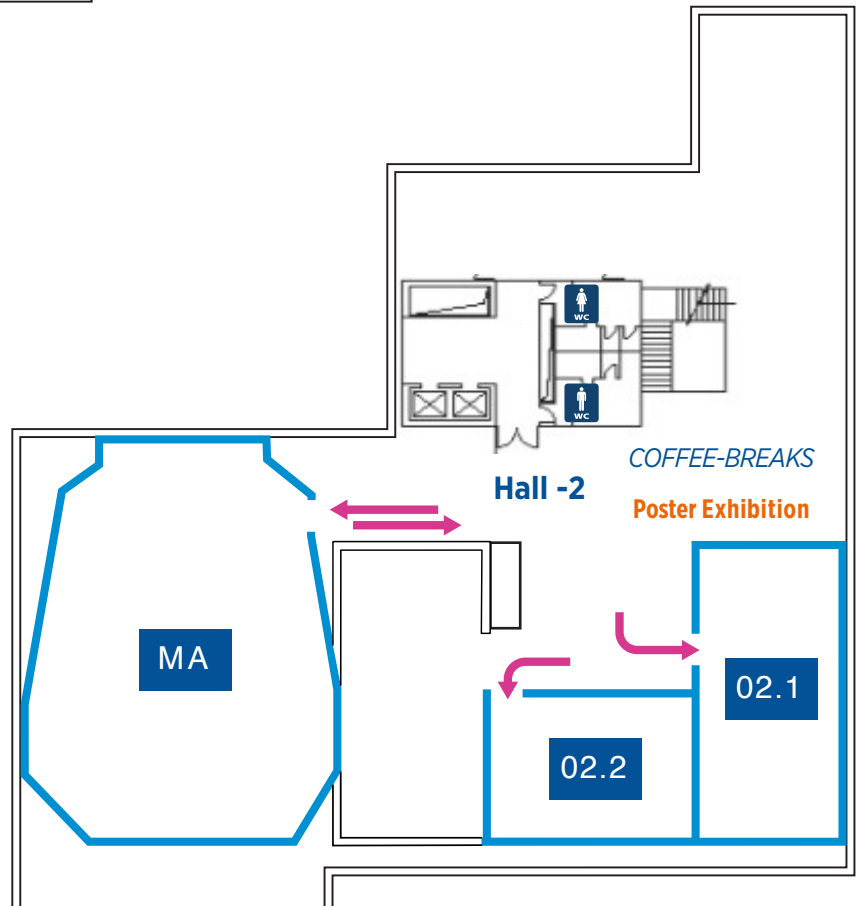
Congress Center Floor Plans

Congress Center Floor -1



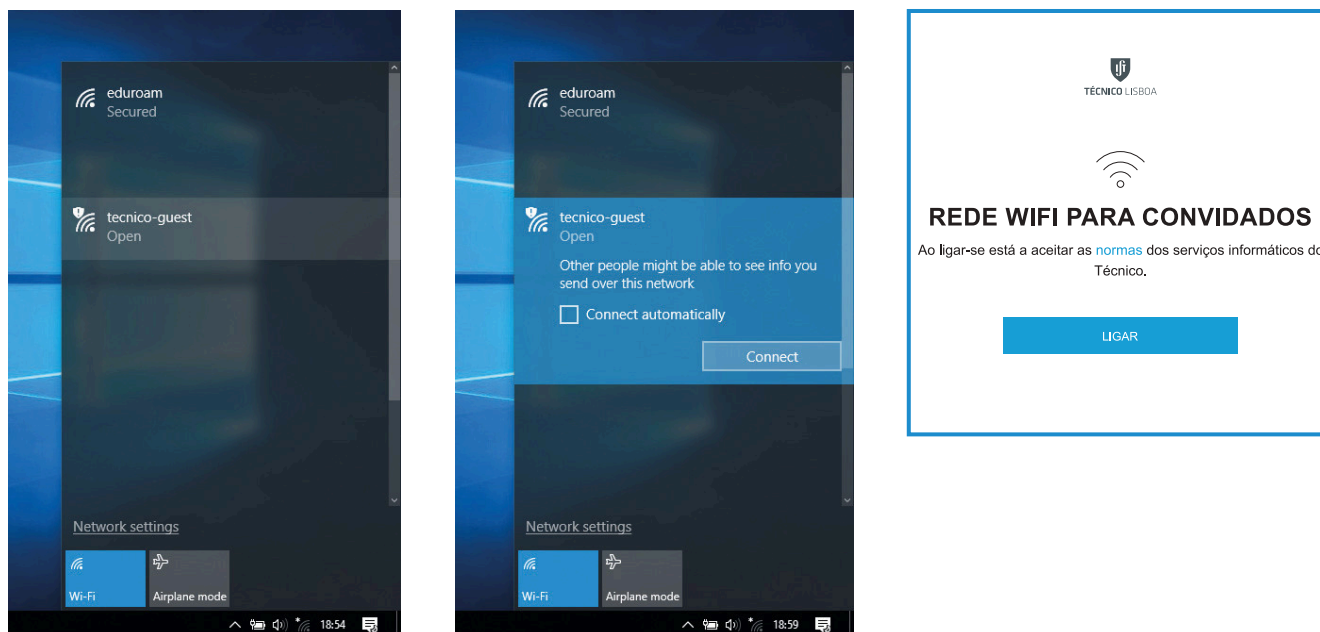
- MA** - Main Auditorium
- S** - Secretariat
- 01.1** - Lecture Room
- 02.1** - Lecture Room
- 02.2** - Lecture Room

Congress Center Floor -2



Conference Information

Wireless Internet Access



- Step 1:** Browse available wireless networks and select “tecnico-guest”
- Step 2:** Open your web browser and access the website “wifi.tecnico.ulisboa.pt”
(most of the computers will do it automatically)
- Step 3:** Click on the (blue) button “Ligar”
- Step 4:** Enter the following credentials:

Account name: Engopt2026

Password: tpmwf8

Instructions for Presenters

- Each Oral presentation will take 20 minutes including discussion.
- The files required for the presentation (PowerPoint or PDF) should be uploaded, and tested to ensure compatibility, during the coffee or lunch breaks before the beginning of the session.
- The lecture rooms contain a Windows PC, with Office and Acrobat PDF Reader, connected to a data projector. The use of personal computers is not recommended.
- Technical support will be provided on-site by the **EngOpt2026** staff to ensure a smooth delivery of all presentations.

Social Program

Welcome Reception > Wednesday, 16 September, 18h-19:30h

The **Welcome Reception** will take place in the lobby of the Instituto Superior Técnico main building.
(See the plant of Instituto Superior Técnico on page 8)



Conference Dinner > Thursday, 17 September, 20h

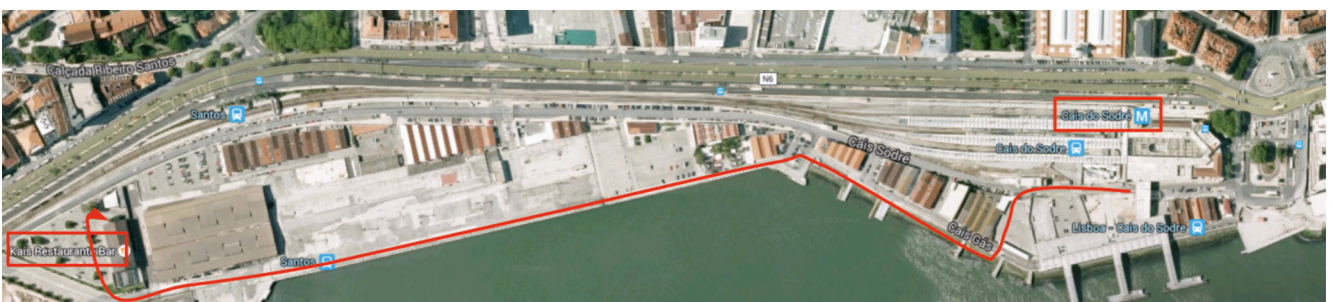
The **Conference Dinner** will take place at the restaurant **KAIS** located at Rua da Cintura do Porto de Lisboa - Santos 1200-109 LISBOA.

You can reach the venue by

Metro: Take the Green Line to **Cais do Sodré** station, then enjoy a pleasant **15 minute walk** along the *Tagus River* to the venue.

Taxi or Ride-Hailing Services: Taxis and services such as Uber and Bolt can drop you off directly at the venue.

Please remember to bring your Banquet Voucher, as it will be required for admission.



Map of Lisboa

Network Map / Underground Lines



General Tourist Information



Getting to Lisbon by air

Direct flights from most of European cities, North or South America and Africa land at the Portela Airport, terminal 1. A taxi ride from the airport to IST is about 4-5 km that takes 10-15 min, depending on traffic, and should cost around 8,00€. To downtown, the taxi ride is about 7 km and should cost around 10,00€. 1,60€ is charged for the transportation of luggage or animals. A sure option is the “Taxi Voucher”, a prepaid taxi service starting at 16,00€, on sale at the “Information Desk” in the arrival terminal. Lisbon Airport has its own Metro Station, Aeroporto - red line (see map of Lisbon with subway lines). Other options are the AeroBus and the Aeroshuttle (4,00€).

Getting to Lisbon by car

Drivers can use highway A1 when coming from the North, highway A2, through the 25 de Abril bridge, when coming from the South, and highway A12, through Vasco da Gama bridge, when coming from the Northeast.

Getting to Lisbon by train

The St. Apolónia station is the terminal for trains arriving from the North of Portugal. Another option is to use the train station Oriente. From the South of Portugal an option is to use the train station Oriente. Connections to the metro lines exist at both stations (St. Apolónia - blue line, Oriente - red line).

Moving around

Taxi:

Lisbon is served by an extensive network of public transportation that can take you anywhere in the city and to its surroundings. Taxis (black and green or beige) are cheap when comparing to most of the European countries. They can be called by phone, picked-up on taxi plazas or stopped on the street. The fare on the taxi meter should start at 3,25€ (daytime pick-up) or 3,90€ (night time). Outside the city limits, city fares are charged

per kilometer. 1,60€ is charged for the transportation of luggage or animals. Before taking a taxi, inquire about the fare.

Metro:

The Lisbon Metro is a very comfortable and an easy way to reach most of the city, from 6:30 to 1:00. The Metro lines reach most of the city being the Metro stations close to IST:

- Alameda (red and green line)
- Saldanha (red and yellow line)

Bus:

The bus routes cover all Lisbon and extend to its outskirts. The tickets can be pre-paid, at the counters of Carris, the surface transportation operator for Lisbon, or bought aboard the bus, electric cars or funiculars. For IST hop off at one of the following bus stops:

- Av. Manuel da Maia
- Av. Rovisco Pais
- Arco do Cego

Metro and Bus Fares:

- Reusable navegante occasional card: **0,50€**
- Metro/Carris single ticket (loaded on the card): **1,90€**
- Carris bus (on-board fare): **2,30€**
- Tram (on-board fare): **3,30€**

Trains:

Suburban trains to Estoril and Cascais depart from the Cais do Sodré train station; to the south of the river cities depart from Roma - Areeiro (Entrecampos); and to Sintra depart from Rossio or Oriente train stations.

The ride to Cascais or to Sintra should take about 35-45 min, each way. The train ride to south of the river is a highlight as the train will cross the 25 de Abril bridge with magnificent views of Lisbon.

For IST, the nearby train stations are:

- Roma - Areeiro
- Entrecampos

Other General Information

- > National emergency number: 112
- > Electricity: 220V, 50 Hz with standard European power sockets
- > Temperature: high 28°C - low 18°C
- > Currency: Euro (€)
- > Banks: working hours are 8:30 – 15:00 (*Monday-Friday*)
- > Pharmacies: 9:00 – 19:00
- > Shops: 9:00 – 19:00
- > Shopping Malls: 10:00 – 23:00



Main Museums in Lisbon:

- > **Centro de Arte Moderna**
(*Modern Art Museum*)
- > **Museu do Oriente**
(*Oriente Museum*)
- > **Museu Calouste Gulbenkian**
(*Calouste Gulbenkian Museum*)
- > **Museu dos Coches**
(*Coach Museum*)
- > **Museu Nacional de Arte Antiga**
(*National Museum for Ancient Art*)
- > **Colecção Berardo**
(*The Berardo Collection*)
- > **Museu do Azulejo**
(*Tile Museum*)

Main Monuments in Lisbon:

- > **Aqueduto das Águas Livres**
(*Águas Livres' Aqueduct*)
- > **Basilíca da Estrela**
(*Estrela Basilica*)
- > **Castelo de São Jorge**
(*Saint George's Castle*)
- > **Sé Patriarcal**
(*Patriarchal Church*)
- > **Mosteiro dos Jerónimos**
(*Jerónimos Monastery*)
- > **Padrão dos Descobrimentos**
(*Monument to the Overseas Discoveries*)
- > **Torre de Belém**
(*Belém Tower*)

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7th INTERNATIONAL CONFERENCE
ON ENGINEERING OPTIMIZATION

SCIENTIFIC PROGRAM

16 > 18 September 2026

INSTITUTO SUPERIOR TÉCNICO | LISBOA | PORTUGAL

Program at a Glance

HOURS	Tuesday 15 September	Wednesday 16 September	Thursday 17 September	Friday 18 September
		Room MA	Room 02.1	Room 02.2
		Room 02.1	Room 02.2	Room 02.1
		Room 01.1	Room 02.2	Room 01.1
08:30 - 09:00				
TOPIC				
09:00 - 09:20				
09:20 - 09:40				
09:40 - 10:00				
10:00 - 10:20				
10:20 - 10:35				
TOPIC				
10:35 - 10:55				
10:55 - 11:15				
11:15 - 11:35				
11:35 - 11:55				
11:55 - 12:15				
12:15 - 12:35				
12:35 - 14:00				
TOPIC				
14:00 - 14:20				
14:20 - 14:40				
14:40 - 15:00				
15:00 - 15:20				
15:20 - 15:40				
15:40 - 16:00				
16:00 - 16:15				
TOPIC				
16:15 - 16:35				
16:35 - 16:55				
16:55 - 17:15				
17:15 - 17:35				
17:35 - 18:00				
18:00 - 19:30				
20:00				

Parallel Sessions

Wednesday

16 September

10:35 h - 12:35 h

Room M. A.	Topic TO 1	Optimal Design Topology		Chair <i>Ole Sigmund</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	410	Topology Optimization of Micro-flows under Uncertainty Using a Stochastic Gradient Approach	<i>Mathis Jonathan Hörmann, Casper Schousboe Andreasen, Ole Sigmund</i>	<i>Mathis Hörmann</i>
10:55 - 11:15	413	One-Shot Topology Optimization for Large-Scale Design of Fluid Manifolds	<i>Esteban Foronda, Alessia Arteconi, Maarten Blommaert</i>	<i>Esteban Foronda</i>
11:15 - 11:35	421	Topology Optimization Of Actuatable Porous Lattices for Programmable Permeability	<i>Nicola Ferro, Giacomo Speroni, Federico Ferrari, Simona Perotto, Ole Sigmund</i>	<i>Nicola Ferro</i>
11:35 - 11:55	424	Contact Mechanism Design in Topology Optimization Using the Third Medium Contact Method	<i>Takahiro Nishio, Velasco Medina Iván Felipe, Takayuki Yamada</i>	<i>Takayuki Yamada</i>
11:55 - 12:15	426	Development of a Multi-Layered Micropolar Elastic Model for Topology Optimization of Link Mechanisms	<i>Yurika Sayo, Takayuki Yamada</i>	<i>Yurika Sayo</i>
12:15 - 12:35	439	A Multi-Material Topology Optimization Framework based on Unconstrained Material Volume Fractions	<i>Bernardo Leite, Mário Brás, Afzal Suleman</i>	<i>Afzal Suleman</i>

Room O2.1	Topic ODS 1	Optimal Design Structures		Chair <i>Emílio Silva</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	392	Scalable Bayesian Optimization for Aerodynamic Design Optimization via Multi-Model Strategies	<i>Emre Özkaya, Nicolas R. Gauger</i>	<i>Emre Özkaya</i>
10:55 - 11:15	396	Structural Optimization Investigations of the Open-Source Gurit98m Wind Turbine Blade Model	<i>Sebastian M. Hermansen, Gregor Borstnar, Erik Lund</i>	<i>Erik Lund</i>
11:15 - 11:35	420	Material Composition Optimization in Aircraft Wing Design for Reduced Lifecycle Environmental Impact	<i>Álvaro Caridade, Almudena Urios, Joseph Morlier, Shantanu Sapre</i>	<i>Joseph Morlier</i>
11:35 - 11:55	438	Aeroelastic Optimization of Stick Models for Parametric Flutter Analysis in Blended-Wing-Body Aircraft	<i>Diogo Bravo, Mário Brás, Afzal Suleman</i>	<i>Diogo Bravo</i>
11:55 - 12:15	476	Physics-Informed Neural Networks For Synthetic Air Data Estimation	<i>Álvaro Ribeiro Gomes de Oliveira, Roberto Dias Pereira, Luiz Carlos S. Góes</i>	<i>Álvaro Oliveira</i>
12:15 - 12:35	382	Improving Data Transfer Quality in Laser Satellite Communication through Thermo-mechanical Topology Optimization	<i>Joran van der Zwet, Mario Badas Aldecocea, Can Ayas, Matthijs Langelaar</i>	<i>Matthijs Langelaar</i>



Room 02.2	Topic IA 1	Industrial Applications		Chair Aurélio Araújo
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	331	Gradient-Based Optimization of a Steel Footbridge Under Static and Dynamic Loading Considering Design Code Requirements	Nele Uytendaele, Geert Lombaert, Mattias Schevenels	Nele Uytendaele
10:55 - 11:15	338	Adjoint Tube Shape Optimization of an Air-to-Refrigerant Heat Exchanger Subject to Flow Maldistribution	Brian O'Malley, James Tancabel, Vikrant Aute	Vikrant Aute
11:15 - 11:35	347	Stress-Constrained Shape and Fibre Orientation Optimization for Lightweight Hydrogen Pressure Vessels	Guzmán Domínguez-Domínguez, Xabier Justo, Luis M. Matey	Guzmán Domínguez-Domínguez
11:35 - 11:55	356	Application of a Machine Learning-Based Topology Optimization Method on an Automotive B-Pillar for Crashworthy Lightweight Design	Jirair Aroyan, Johannes Sperber, Christopher Ortmann, Axel Schumacher	Jirair Aroyan
11:55 - 12:15	402	Robust Design of Vibratory Rammers with Maximized Environmental Operating Range	Andela Babaja, Tobias Wanninger, Florian Nießl, Bharath Venkatesh, Daniela Zierer, Martin Käser, Edith Kramp, Rudolf Berger, Stylianos Chrisopoulos, Roberto Cudmani, Markus Zimmermann	Andela Babaja
12:15 - 12:35	414	Topology Optimization of Hydrogen Heat Exchangers	Jose I. Rothkegel Ide, Pierre Duysinx	Jose Ide

Room 01.1	Topic INV 1	Inverse Problems and Sensitivity Analysis		Chair Andrej Cherkasov
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	291	Adjoint Sensitivity Analysis for Topology Optimization Under Time-Harmonic Prescribed Displacements	Olavo M Silva, Arcanjo Lenzi, Eduardo Lenz Cardoso	Olavo M Silva
10:55 - 11:15	308	Inverse Determination of the First Two Natural Frequencies of a Simplified Beam-Tendon Dynamic Model	Reyolando Brasil, Marcelo Araujo da Silva, Jean Vasco	Reyolando Brasil
11:15 - 11:35	318	Reconstructing Rock Temperature Profiles from Field Measurements Using Finite Element Modeling and Inverse Analysis	Jaka Dujc	Jaka Dujc
11:35 - 11:55	394	Conditional Flow Matching for ML-Based Inverse Design Problems	Juliana Felder, Soheyl Massoudi, Milad Habibi, Mark Fuge	Juliana Felder
11:55 - 12:15	405	Fast Probabilistic Material Characterization: Amortized Simulation-Based Inference for Phenomenological Models with Bayes Flow	Tom Hoppe, Glenn Inga Klose, Oliver Völkerink, Thomas Vietor	Tom Hoppe
12:15 - 12:35	463	Adjoint-Based Sensitivity Analysis in the Modeling and Optimization of Meta-Plates	Rangel Moura Barbosa, Alberto Luiz Serpa	Alberto Serpa

Parallel Sessions

Wednesday

16 September

14:00 h - 16:00 h

Room M. A.	Topic TO 2	Optimal Design Topology		Chair Boyan Lazarov
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	278	External Compressible Flow Designs Optimised by Topology Optimisation	Icaro Amorim Carvalho, Diego Hayashi Alonso, Luis Fernando Garcia Rodriguez, Felipe Silva Maffei, Emilio Carlos Nelli Silva	Emilio Silva
14:20 - 14:40	288	Topology Optimization Including Weld Line Control	Vanessa Cool, Frank Naets, Elke Deckers	Vanessa Cool
14:40 - 15:00	290	Topology Optimization of Elasto Plastic Structures with Permanent Response	Mathias Wallin, Gunnar Granlund	Mathias Wallin
15:00 - 15:20	293	Development of Particle-Added Element Connectivity Method for Topology Optimization with Internal Contact	Young Hun Choi, Gil Ho Yoon	Gil Ho Yoon
15:20 - 15:40	304	NVH-oriented Topology Optimization of a Permanent Magnet Synchronous Motor for Automotive Traction	Laura Fenoglio, Giacomo Guidotti, Federico Maria Ballo, Massimiliano Gobbi, Giampiero Mastinu	Federico Ballo
15:40 - 16:00	432	Continuous Optimization of Functionally Graded Auxetic Beams Using Metaheuristic Algorithms	N.M.C.S. Leite, M.A.R. Loja, J.I. Barbosa	N.M.C.S. Leite

Room O2.1	Topic ODS 2	Optimal Design Structures		Chair Rafael Ferreira
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	298	Efficient Conversion of Lamination Parameters to Production-friendly Blended Stacking Sequences	Rakshith Manikandan, David Zerbst, Christian Ückert, Christian Hühne	Rakshith Manikandan
14:20 - 14:40	300	Fatigue Aware Design Optimization	Andréas Andersson, Mathias Wallin, Matti Ristinmaa, Vilmer Dahlberg	Andréas Andersson
14:40 - 15:00	319	Simple Parametrizations for Extremal Elastic Microstructures	Markus Gúmoes Holm, Ole Sigmund	Markus Holm
15:00 - 15:20	376	Optimization of Resonant Supports for Simultaneous Plate Vibration and Force Transmission Reduction	Line Mardini, Claus Claeys, Elke Deckers, Bart Van Damme	Line Mardini
15:20 - 15:40	360	Disordered Network Metamaterials with Optimally-Tailored Mechanics	Lucien Tsai, Glaucio H. Paulino	Lucien Tsai
15:40 - 16:00	349	How Design Code-Based Admissibility Reshapes Attainable Pareto Fronts in Nozzle Design	Stéphane Côté, Sudip Ganguly	Stéphane Côté



Room 02.2	Topic NM 1	Numerical and Computational Techniques		Chair <i>Pedro Areias</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	284	Identification of Ordinary Differential Equation Surrogates from Numerical Integration with Adaptive Time-Step Schemes	<i>Timo Bielitz, Dieter Bestle</i>	<i>Timo Bielitz</i>
14:20 - 14:40	423	A Hybrid Approach to Mesh Optimization with Neural Warm-Starts	<i>Olivier R. Gouveia, José M. Guedes, Rui B. Ruben</i>	<i>Olivier R. Gouveia</i>
14:40 - 15:00	471	SCD Semismooth* Newton Method For Solving Stokes Problem With Stick-Slip Boundary Condition	<i>Vladimir Arzt, Petr Beremlijski</i>	<i>Vladimir Arzt</i>
15:00 - 15:20	479	Identifying the Transition Solution of Moving Inertial Objects by Optimization Techniques	<i>Zuzana Dimitrovova</i>	<i>Zuzana Dimitrovova</i>
15:20 - 15:40	489	Derivative-Free Optimization for Mixed-Variable Engineering Design	<i>J. F. A. Madeira</i>	<i>J. F. A. Madeira</i>

Room 01.1	Topic IA 2	Industrial Applications		Chair <i>João Folgado</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	275	Transmission and Generation Expansion Planning with Flexibility Metrics, Virtual Power Plants, Virtual Transmission Lines, Energy Storage, Distributed Resources Integration, and Net Demand Ramping Constraints	<i>Flavio Arthur Leal Ferreira</i>	<i>Flavio Ferreira</i>
14:20 - 14:40	312	Explainable Fuzzy Control for Adaptive Cruise Control and Lane Change in Autonomous Highway Driving	<i>Amur S. Al Yahmedi, Meriam Gaied, Riadh Zaier, Hussein Obeid, Hakan Gultekin</i>	<i>Amur Al Yahmedi</i>
14:40 - 15:00	335	Interpretable Predictive Rule-Based Energy Management for Residential Balcony PV Systems with Heterogeneous Storage	<i>David Gögelein, Marianne von Schwerin</i>	<i>David Gögelein</i>
15:00 - 15:20	359	Multi-Objective Optimization in the Management of Waste-Derived Fuel Supply Chains: A Comprehensive Approach for Colombia	<i>Simón Herrera, Juan D. Parra, Laura A. Carmona, Raúl A. Valencia, Carlos A. Bustamante, Whady F. Flórez Escobar, Vladimir M. Tejada, Oscar Vasco-Echeverri</i>	<i>Simón Herrera</i>
15:20 - 15:40	404	From Natural Language to Executable Optimization Workflows, A Knowledge Graph Driven Framework for Multi Disciplinary Optimization	<i>Aref Aghaee Hakkak, Anton Wiberg, Mehdi Tarkian</i>	<i>Aref Hakkak</i>
15:40 - 16:00	477	Enhancing Online Control and Optimization of Oil Reservoirs Using Machine Learning	<i>Rodolfo S.M. Freitas, Gabriel F. Barros, Amanda C. N. de Oliveira, Rômulo M. Silva, Ezequiel S. Santos, Fernando A. Rochinha, Alvaro L.G.A. Coutinho</i>	<i>Fernando Rochinha</i>

Parallel Sessions

Wednesday

16 September

16:15 h - 17:35 h

Room M. A.	Topic TO 3	Optimal Design Topology		Chair Niels Aage
TIME	ID	TITLE	AUTHORS	SPEAKER
16:15 - 16:35	332	Topology Optimization of Industrial Origami Structures: A Sequential Design Approach with Prototype Fabrication and Testing	Atsushi Kawamoto, Hiroki Kobayashi, Shoko Arita, Sunao Tomita, Jonas Nyvang, Tue Beijer, Masato Tanaka, Tsuyoshi Nomura	Atsushi Kawamoto
16:35 - 16:55	344	Cut-element Based Topology Optimization Of Speakerphone Sound Radiation	Peter Risby Andersen, Laurits Theil Nicolaisen	Peter Andersen
16:55 - 17:15	350	Level Set Topology Optimization of Hyperelastic Structures via the Cut Element Method	Haruo Luigi Sato, Gustavo Assis da Silva, Hélio Emmendoerfer Junior	Hélio Junior
17:15 - 17:35	352	Fail-safe Topology Optimization Analysis In Geometrically Nonlinear Structures Composed Of Hyperelastic Materials	Gabriel Neves Queiroz, Edson Denner Leonel	Gabriel Queiroz

Room O2.1	Topic SH 1	Shape Optimization		Chair Erik Lund
TIME	ID	TITLE	AUTHORS	SPEAKER
16:15 - 16:35	328	Shape Optimization of Structures in Contact	Kenneth E. Swartz, Eric B. Chin, Michael Tupek	Kenneth Swartz
16:35 - 16:55	388	Learning Admissible Shape Manifolds for Simulation Based Design Optimization	Andrea Serani, Matteo Diez	Andrea Serani
16:55 - 17:15	343	Neural Implicit Geometry Representation for Gradient-Based Shape Optimization	Lukas Freinberger, Michael Kofler, Stefanie Elgeti	Lukas Freinberger
17:15 - 17:35	374	Shape Optimization of Integrated Wind Turbine Towers and its Connections	Pedro José de Freitas, Niels Leergaard Pedersen, Konstantinos Poullos, Erik Lund, Niels Aage	Pedro Freitas



Room 02.2	Topic ODS 3	Optimal Design Structures		Chair <i>Niels Pedersen</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
16:15 - 16:35	334	Multidisciplinary Optimization of Lattice Structures for a Morphing Wing Using Neural Implicit Geometry	<i>Michael Kofler, Stefanie Elgeti</i>	<i>Michael Kofler</i>
16:35 - 16:55	365	Multiobjective Reliability-Based Design Optimization of Stochastic Structural Systems using a Compromise Programming Strategy	<i>Danko Jerez, Hector Jensen, Antonia Schiaffino</i>	<i>Danko Jerez</i>
16:55 - 17:15	442	A Continuation Method for Regularized Contact Mechanics Constrained Optimization	<i>Tucker Hartland, Brandon Talamini, Michael Tupek</i>	<i>Tucker Hartland</i>
17:15 - 17:35	460	Sensor Placement Optimization Considering Model Uncertainty and Sensor Clustering in Variable-Stiffness Composite Structures	<i>Haichao An</i>	<i>Haichao An</i>

Room 01.1	Topic NM 2	Numerical and Computational Techniques		Chair <i>Ana Custódio</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
16:15 - 16:35	301	A Rotation-Based Regularization for Third Medium Contact With Applications to Gradient-Based Optimization	<i>Vilmer Dahlberg, Filip Sjövall, Anna Dalklint, Mathias Wallin</i>	<i>Vilmer Dahlberg</i>
16:35 - 16:55	307	Deep Gaussian Processes for Probabilistic Prediction of UAV Propeller Aerodynamics	<i>Heine Havneraas Røstum, Frederico Afonso, Joseph Morlier</i>	<i>Heine Røstum</i>
16:55 - 17:15	482	Time Integration Algorithms for Structural Optimization	<i>Pedro Areias, Hélder Rodrigues, José Miranda Guedes</i>	<i>Pedro Areias</i>
17:15 - 17:35	486	Automatic Generation of Microstructure Models with Inclusions for Composite Material Modelling	<i>João A. A. Pinheiro, J. M. Guedes, H. C. Rodrigues</i>	<i>João Pinheiro</i>

Parallel Sessions

Thursday
17 September
09:00 h - 10:20 h

Room M. A.	Topic TO 4	Optimal Design Topology		Chair <i>Gil Ho Yoon</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	446	Topology Optimization of a High-Precision Machine Tool Structure Considering High-Frequency Dynamic Rigidity and Thermoelastic Loads	<i>Takehito Osuga, Ryota Shindo, Naoki Tsunekawa, Jike Han, Kozo Furuta, Shinji Nishiwaki</i>	<i>Takehito Osuga</i>
09:20-09:40	452	A Mixed-Integer Topology Optimization Framework for Powder Metallurgy Processes Leveraging Sensitivity-Guided Stochastic Search	<i>Kazuki Kominami, Naoyuki Ishida, Kazuhiro Izui, Shinji Nishiwaki</i>	<i>Naoyuki Ishida</i>
09:40-10:00	456	Multiobjective Topology Optimization: Novel Insights and a Comparison of Scalarization Strategies	<i>Tom De Weer, Ole Sigmund, Gabrielle Eichfelder</i>	<i>Tom De Weer</i>

Room 02.1	Topic TS 1	Topology/Shape Optimization		Chair <i>Hélder Rodrigues</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	309	Exploring One-Shot Multigrid Preconditioning in Topology Optimization	<i>Oded Amir</i>	<i>Oded Amir</i>
09:20-09:40	363	Efficient Robust Topology Optimization for Large-Scale 3D Structures	<i>Junpeng Wang, Niels Aage, Ole Sigmund</i>	<i>Junpeng Wang</i>
09:40-10:00	345	Model Order Reduction Techniques for Fast Topology Optimization Of Broadband Vibroacoustic Systems	<i>Laurits Bachmann Theil, Peter Risby Andersen, Allan Peter Engsig-Karup, Niels Aage</i>	<i>Laurits Theil</i>
10:00-10:20	395	Extending the SERA Method to Auxetic Material Design	<i>Alain Garaigordobil</i>	<i>Alain Garaigordobil</i>



Room 02.2	Topic ODS 4	Optimal Design Structures		Chair J M Guedes
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	348	Algorithmic Development of Time-Dependent Pinch Analysis based Methodology for Transient Thermodynamic Optimization in Fast Hydrogen Refuelling	Manex Lopez	Manex Lopez
09:20-09:40	313	Heteroscedastic Gaussian Process Regression for The Robust Design of Imperfection-Sensitive Precast Beams	James Whiteley, Jurgen Becque	James Whiteley
09:40-10:00	408	Optimization of Mechanical Logic Systems	Brianna MacNider, Kenny Swartz, Mike Tupek, Katie Riley, Dan Tortorelli, Brandon Talamini	Brianna MacNider
10:00-10:20	444	On Optimizing the Topography of Flat Heat Pipes	Casper Schousboe Andreasen, Asger Bjerregaard Petersen, Martine Baelmans, Maarten Blommaert	Casper Andreasen

Parallel Sessions

Thursday
17 September
10:35 h - 12:35 h

Room M. A.	Topic TO 5	Optimal Design Topology		Chair <i>Hélder Rodrigues</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	306	Constrained Topology Optimization of Closed NURBS Curves for Continuous Fiber 3D Printing	<i>Joaquin Castro, Eduardo Fernández, José Rothkegel, Pierre Duysinx</i>	<i>Joaquin Castro</i>
10:55 - 11:15	310	Minimization of The Dynamic Response of Induction Motors Using The Topology Optimization Method	<i>Alex Ludero, Eduardo Lenz Cardoso</i>	<i>Alex Ludero</i>
11:15 - 11:35	320	Topology Optimization of Quantum Opto-Mechanical Systems	<i>Victor Pisinger, Ole Sigmund, Niels Aage</i>	<i>Victor Pisinger</i>
11:35 - 11:55	323	Topology Optimization and Design Robustness	<i>Ole Sigmund</i>	<i>Ole Sigmund</i>
11:55 - 12:15	321	Tailoring Robust Photonic Components using Stochastic Topology Optimization	<i>Philip Elbek, Rasmus Ellebæk Christiansen, Niels Aage, Ole Sigmund</i>	<i>Philip Elbek</i>
12:15 - 12:35	326	Topology Optimization of RF Electromagnetic Devices Using DG-FEM	<i>Niels Aage</i>	<i>Niels Aage</i>

Room 02.1	Topic ODS 5	Optimal Design Structures		Chair <i>Petr Beremlijski</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	287	Dimensionality Reduction-Based Affinity Learning for Categorical Variables in Surrogate-Based Optimization - Application to Structural and Mechanical Design	<i>Charlotte Beauthier, Christophe Dumeunier, Rajan Filomeno Coelho, Rémy Nigro, Caroline Sainvitu, Annick Sartenauer</i>	<i>Charlotte Beauthier</i>
10:55 - 11:15	368	Stochastic Optimal Control under Parametric Uncertainty using a PDD-NARX Surrogate model	<i>Kyubeen Lim, Dongjin Lee</i>	<i>Kyubeen Lim</i>
11:15 - 11:35	369	Multi-agent Reinforcement Learning With Surrogate Models for High-Dimensional Design Optimization	<i>Hyunho Jang, Dongjin Lee</i>	<i>Hyunho Jang</i>
11:35 - 11:55	419	Optimization-Based Comparison of the Mass Efficiency of Stringer-Stiffened and Sandwich Composite Panels	<i>David Zerbst, Edgar Werthen, Rakshith Manikandan, Sascha Dähne, Christian Hühne</i>	<i>David Zerbst</i>
11:55 - 12:15	428	A Numerical Framework for Form Finding of Gridshells Considering Fabrication Uncertainties	<i>Matteo Bruggi, Bálint Tóth, Janos Lógó</i>	<i>Tóth Bálint</i>
12:15 - 12:35	430	Integrated Stiffness and Strength Optimization of Manufacturable Variable Stiffness Composite Laminates	<i>Felipe Fernández</i>	<i>Felipe Fernández</i>



Room 02.2	Topic IA 3	Industrial Applications		Chair <i>Carlos Quental</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	322	Multi-Objective CFD-Based Design Optimisation of Top Blowing Argon Stirred Molten Steel Ladle	<i>Zinedine Khatir, James Bolus</i>	<i>Zinedine Khatir</i>
10:55 - 11:15	364	Manufacturing Cells Design in Job Shop Production Systems Using a p-Median Model and a Genetic Algorithm	<i>José Ribeiro</i>	<i>José Ribeiro</i>
11:15 - 11:35	457	Solving a Real World Supply Chain Problem by Matheuristics: Challenges and Practical Solutions	<i>Alexandre Checoli Choueiri, Leandro Magatão</i>	<i>Leandro Magatão</i>
11:35 - 11:55	488	Optimization of Parallel Ship Block Assembly with Flexible Resource Allocation	<i>Javier Pernas-Álvarez, Hyungjoo Cha, Jeong Hoon Kim</i>	<i>Javier Pernas-Álvarez</i>
11:55 - 12:15	324	Optimal Design of Seaweed Collection Conveyors Using a Multi-Objective Genetic Algorithm	<i>Jaein Kim, Charmi Kim, SuJin Han, ShinYoung Park, Huiju Yu, Jaehyun Yoon</i>	<i>Jaein Kim</i>
12:15 - 12:35	389	High-Dimensional Bayesian Optimization Applied to a Ship Energy System	<i>Florian Dugast, Stéphane Bénac, Pierre Marty, Pascal Chessé</i>	<i>Florian Dugast</i>

Parallel Sessions

Thursday
17 September
14:00 h - 16:00 h

Room M. A.	Topic TO 6	Optimal Design Topology		Chair <i>Frederico Ferrari</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	354	Topology Optimization of Bolted Components Considering Assembly Constraints and Tool Accessibility	<i>Sergi Pagès, Markus Zimmermann</i>	<i>Sergi Pagès</i>
14:20 - 14:40	358	Broadband Optimization and Robustness to Geometric Imperfections of nanophotonic designs	<i>Johannes Gedeon, Philip Elbek, Rasmus Ellebæk Christiansen, Ole Sigmund</i>	<i>Johannes Gedeon</i>
14:40 - 15:00	362	Simultaneous Topology and Joint Position Optimization Considering Joint Load Limits	<i>Johannes Soika, Jakob Schenk, Markus Zimmermann</i>	<i>Johannes Soika</i>
15:00 - 15:20	366	Isogeometric topology optimization of plane fiber-reinforced structures using boundary techniques	<i>Mário Sérgio Oliveira César Filho, Hugo Luiz Oliveira, Edson Denner Leonel</i>	<i>Mário Filho</i>
15:20 - 15:40	375	Topology Optimized Junctions of a Strut-Braced Wing in a Concurrent Composite Optimization for a Hydrogen Aircraft	<i>Lander Vertonghen, Charly Mollet, Cédric Julien, François-Xavier Irisarri</i>	<i>Cédric Julien</i>
15:40 - 16:00	379	Manufacturability-Aware Anisotropic Topology Optimization for Concurrent Design of Fiber Orientation and Layup Surfaces	<i>Tsuyoshi Nomura, Hiroki Kobayashi, Yuqing Zhou, Atsushi Kawamoto</i>	<i>Tsuyoshi Nomura</i>

Room O2.1	Topic IA 4	Industrial Applications		Chair <i>Rui Ruben</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	333	A Genetic Algorithm Approach to Optimal Sensor Placement in Liquid Hydrogen Fuel Tanks	<i>Adrian Winter, Ali Alijev, Kay Kochan</i>	<i>Adrian Winter</i>
14:20 - 14:40	351	A Practical Optimization Framework for High-Dimensional Aerodynamic Design Using Single- and Multi-Fidelity Bayesian Methods	<i>Pavel Eremeev, Ruben Sevenois, Frank Naets</i>	<i>Frank Naets</i>
14:40 - 15:00	411	Computational Assessment of Aerodynamic Shape Optimization for Aeroelastic Scaling: 2D Airfoil vs. 3D Wing Optimization	<i>Duarte Brito, Afzal Suleman, Fernando Lau, Frederico Afonso</i>	<i>Duarte Brito</i>
15:00 - 15:20	416	Optimization of Stiffener Concepts for High Aspect Ratio Wings: Structural Weight, Load Reduction, and Aeroelastic Performance	<i>Sascha Dähne, Thomas Klimmek, Matthias Schulze, David Zerbst, Rakshith Manikandan, Christian Hühne</i>	<i>Sascha Dähne</i>
15:20 - 15:40	475	System Modelling and Design Optimization of Wind Sails and Route for Wind Assisted Ship	<i>Cem Guzelbulut, Shun Ogawa, Katsuyuki Suzuki</i>	<i>Katsuyuki Suzuki</i>
15:40 - 16:00	462	Multi-Objective Optimization Framework for Simultaneous Design Optimization & Requirements Engineering of Electric Powertrains	<i>Martin Hofstetter, Dominik Lechleitner</i>	<i>Martin Hofstetter</i>



Room 02.2	Topic EI	Emerging and Multidisciplinary Topics		Chair J. F. A. Madeira
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	491	From Waste to Worth: Contract Design for Green Investment in Circular Supply Chains	Seyed Mohammad Sina Mirabdolbaghi, Adel Aazami, Sebastian Kummer	Adel Aazami
14:20 - 14:40	282	Contribution of AI and Machine Learning in optimization of ultrasensitive Bio-sensors: Review	David Bassir, Muhammad Awais, Ata Jahangir Moshayedi	David Bassir
14:40 - 15:00	325	LLM-enhanced Dynamic Fleet Planning with Hierarchical Multi-agent Reinforcement Learning Framework	Lijing Liu, James M. Shihua, Qiyu Yan, Rhea P. Liem	Lijing Liu
15:00 - 15:20	417	EV Focused Energy-Optimal Driving Behavior Across Urban and Highway Cycles in Different Driving Conditions	Prasad Sonavane, Ujjwal Belwariar	Prasad Sonavane
15:20 - 15:40	378	Training-Free Data-Centric Preprocessing for Robust Open Set Fault Diagnosis	Youngjae Jeon, Dongjin Lee	Youngjae Jeon
15:40 - 16:00	494	Multi-Objective Optimization of Aerospace Micro-Structures using a Direct-Search Method Implemented in Python	Madalena Cunha, José M. Guedes, J. F. A. Madeira	Madalena Cunha



Poster Session

Thursday
17 September
16:00 h - 16:30 h

HALL -2	Poster Session		
ID	TITLE	AUTHORS	SPEAKER
305	Bayesian Optimization of a Lightweight and Accurate Neural Network for Aerodynamic Performance Prediction	James M Shihua, Paul Saves, Rhea P Liem, Joseph Morlier	Joseph Morlier
314	Global Optimization of Antennas Using CNN-Based Inverse Surrogates and Expedited Fine-Tuning	Slawomir Koziel, Anna Pietrenko-Dabrowska	Slawomir Koziel
327	Optimization of Active Sleep Assistance Devices for Sudden Infant Death Syndrome(SIDS) Prevention	Jaein Kim, Nayoung Shin, Seoyeon Kim, Yuni Park, Huiju Yu, Jaehyun Yoon	Jaein Kim
346	An Optimization-Based Approach to Determining DC Motor and Drive Parameters from Measured Quantities	Marko Jesenik, Jakob Vizjak, Mislav Trbušić	Marko Jesenik
406	Topology Optimization of 316LSi Stainless Steel Structures Produced by CMT-WAAM	Frane Vlak, Dulce Maria Rodrigues, David Gomes Andrade, Vedrana Cvitanic	Frane Vlak
415	Level-set topology optimization for heat exchangers operating in the turbulent regime	Niels Horsten, Anatole De Becker, Yann Bartosiewicz, Maarten Blommaert	Niels Horsten
427	Climate-Driven Variability in Sugarcane Productivity: A Data-Driven Assessment for São Paulo State (Brazil)	Giulia Cruz Lamas, Normando Perazzo Barbosa Sout, Igor F. Mendonça, Marcela Rodrigues Machado, Ana Filipa Ferreira, Edgar Amaral Silveira	Giulia Lamas
431	Gradient based optimization of discrete structural members using continuous selection variables	Felipe Fernández	Felipe Fernández
458	Newton-type methods for Detecting Robotic Arm Position Using Camera	Michaela Bailova, Petr Beremlijski, Michal Beres	Michaela Bailova
469	Comparison of epsilon-constraint algorithms for a bi-objective CVRP	Margarida Aires de Abreu, José Rui Figueira, Daniel Rebelo dos Santos	Margarida Abreu
484	Topology Optimization of Binary Structures for Acoustic Problem	Gil Ho Yoon, Chang Wan Kim, Heung Soo Kim	Gil Ho Yoon
485	Optimal Design of Indirect Liquid Cooling Systems for Electric Vehicle Battery Pack	Jun Hur, Jeonghwan Yun, Chang-Wan Kim	Chang-Wan Kim

Parallel Sessions

Friday
18 September
09:00 h - 10:20 h

Room 02.1	Topic TS 2	Topology/Shape Optimization		Chair <i>Oded Amir</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	340	Thermomechanical Properties Optimization of L-PBF Support Structures Via Asymptotic Homogenization and Response Surfaces	<i>Ariangelo Hauer Dias Filho, Felipe Mariano Brandão, Rafael Thiago Luiz Ferreira, José Miranda Guedes</i>	<i>Ariangelo Filho</i>
09:20-09:40	372	Explicit Dynamic Topology Optimization Under Time Dependent Displacement Constraints	<i>Gustavo Assis da Silva</i>	<i>Gustavo Silva</i>
09:40-10:00	380	Shape Optimization of Nonlinear Resonant Response in 3D MEMS Structures Using Second-Order Normal Form Theory	<i>Marian Hörsting, Tobias Marx, Matthias Wenzel, Simon Pfingstl, Peter Degenfeld-Schonburg</i>	<i>Marian Hörsting</i>
10:00-10:20	443	Scaling Topology Optimization for Time Harmonic Dynamic Problems	<i>Boyan Lazarov, Mathias Schmidt</i>	<i>Boyan Lazarov</i>

Room 02.2	Topic TO 7	Optimal Design Topology		Chair <i>Mathias Wallin</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	390	Bi-level Optimization of Structural Topology and Actuation Layout using Multidisciplinary Design Optimization	<i>Marek Slebioda, Hassan Hossein Nia, Matthijs Langelaar, Gianfranco la Rocca</i>	<i>Marek Slebioda</i>
09:20-09:40	425	Aperiodic Lattice Metamaterials with Improved Resilience to Impact	<i>Andrej Cherkaev, Tyler Evans, Debdeep Bhattacharya</i>	<i>Andrej Cherkaev</i>
09:40-10:00	470	Multi-Material Topology Optimization of Electric Machines under Maximum Temperature, Stress and Demagnetization Constraints	<i>Peter Gangl, Nepomuk Krenn</i>	<i>Peter Gangl</i>
10:00-10:20	487	Context-Aware Deep Reinforcement Learning for Multi-Objective Topology Optimization: From Global Compliance to Local Stress Constraints	<i>Valentin Würz, Christian Weißenfels</i>	<i>Valentin Würz</i>



Room 01.1	Topic SH 2	Shape Optimization		Chair <i>Mattijs Langelaar</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	448	Shape Optimization in Stokes Problems With Stick-Slip Boundary Conditions	<i>Petr Beremlijski, Vladimir Arzt</i>	<i>Petr Beremlijski</i>
09:20-09:40	478	Distributionally Robust Shape and Topology Optimization	<i>Charles Dapogny, Franck Iutzeler, Julien Prando, Boris Thibert</i>	<i>Charles Dapogny</i>
09:40-10:00	283	Practical Optimum Shape Design of Thin-Walled Open Cross Sections Subjected to Bi-Axial Moment and Torsion Using Soft Computing Techniques	<i>Mehmet Polat Saka</i>	<i>Mehmet Saka</i>

Parallel Sessions

Friday
18 September
10:35 h - 12:35 h

Room 02.1	Topic TO 8	Optimal Design Topology		Chair <i>Katsu Suzuki</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	384	Topology Optimization of Surgical Suture Distribution	<i>Brandon Parks, Markus Grmoes Holm, Niels Aage</i>	<i>Brandon Parks</i>
10:55 - 11:15	386	Topology Optimization of Nonperiodic Lattices by Inverse Homogenization	<i>Federico Ferrari, Ole Sigmund</i>	<i>Federico Ferrari</i>
11:15 - 11:35	337	Truss Topology Optimization Considering Chain Effects in Local Buckling	<i>Fbio Conde, Cludia Almeida, Pedro Coelho, Guilherme Rodrigues, Hugo Biscaia</i>	<i>Fbio Conde</i>
11:35 - 11:55	403	A Density-Based Framework for Simultaneous Topology and Joint Location Optimization of Assemblies	<i>Mohammad Aligholizadeh, Ronald Bartz, Julian Redeker, Thilo Franke, Thomas Vietor</i>	<i>Mohammad Aligholizadeh</i>
11:55 - 12:15	409	Topology and Orientation Optimization of Short-Fiber Reinforced Structures With Microstructure Control	<i>Jonathan Taulo Pedersen-Bjergaard, Berin eta, Federico Ferrari, Jon Spangenberg, Ole Sigmund, Casper Schousboe Andreasen</i>	<i>Jonathan Pedersen-Bjergaard</i>
12:15 - 12:35	400	On Pressure-Loaded Multi-Material Structures Using Topology Optimization	<i>Swagatam Islam Sarkar, Prabhat Kumar</i>	<i>Swagatam Sarkar</i>

Room 02.2	Topic IA 5	Industrial Applications		Chair <i>Vikrant Aute</i>
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	292	Optimizing the Capacitated Electric Vehicle Routing Problem using Chaotic Discrete Chimp Optimization Algorithm	<i>Donald Davendra</i>	<i>Donald Davendra</i>
10:55 - 11:15	311	Design of Rigid-Flexible Satellite Control using the Sdre Method	<i>Luiz Carlos Gadelha de Souza</i>	<i>Luiz Souza</i>
11:15 - 11:35	373	Systematic Evaluation of Multi-Objective Evolutionary Algorithms for Combinatorial Electric Drivetrain Design	<i>Helena Kppeler, Stefan C. Schlanderer, Edmund Marth, Gerd Bramerdorfer, Alexandru-Ciprian Zavoianu</i>	<i>Helena Kppeler</i>
11:35 - 11:55	381	On Optimal Wave Spring	<i>Niels L. Pedersen</i>	<i>Niels L. Pedersen</i>
11:55 - 12:15	401	Optimization Approaches for Battery Pack Layout and Integration: A Review of Methods, Tools, and Research Gaps	<i>Mohammad Shariati Sharifi, Johan Persson</i>	<i>Mohammad Sharifi</i>
12:15 - 12:35	447	Gradient-Based Optimization of Sustainable Rotor Blade Designs for Large-Scale Wind Turbines	<i>Edgar Werthen, David Zerbst, Lennart Tnjes, Christian Hhne</i>	<i>Edgar Werthen</i>



Room 01.1	Topic NM 3	Numerical and Computational Techniques		Chair Zuzana Dimitrovová
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	341	Thermomechanical simulation and optimization of L-PBF support structures for mitigating distortion	Ariangelo Hauer Dias Filho, Felipe Mariano Brandão, Rafael Thiago Luiz Ferreira	Rafael Ferreira
10:55 - 11:15	385	Derivative-Free Optimization Approach for Structured Symmetric Matrices With Fixed Eigenvalues	Carmo P. Brás, Evelin H. M. Krulikowski, Marcos Raydan	Marcos Raydan
11:15 - 11:35	393	Direct Sensitivity Analysis in a Mixed Lagrangian Time Stepping Framework	Nicolò Pollini	Nicolò Pollini
11:35 - 11:55	422	Recent Progresses in Direct Multisearch (DMS)	Ana Luísa Custódio	Ana Custódio
11:55 - 12:15	353	Towards frugal Bayesian optimization for engineering design	Gaston Plat, Paul Saves, Nathalie Bartoli, Thierry Lefebvre, Joseph Morlier	Gaston Plat

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