Wednesday | **16 SEPTEMBER** | 10:35 – 12:35

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

Room B	Topic IA 1	Industrial Applications		
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 Uyttebroeck, Geert Lombaert, Mattias Schevenels*	*Nele Uyttebroeck*
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*

Wednesday | **16 SEPTEMBER** | 10:35 – 12:35

Room C	Topic INV1	Inverse Problems and Sensitivity Analysis		
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 BayesFlow	*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*

Room D	Topic T01	Optimal Design Topology		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
10:35 - 10:55	410	Topology Optimization of Micro-flows under Uncertainty Using a Stochastic Gradient Approach	*Mathis Jonathan Hörmann, Casper Schousboe Andreasen, Ole Sigmund*	*Mathis Hörmann*
10:55 - 11:15	413	One-Shot Topology Optimization for Large-Scale Design of Fluid Manifolds	*Esteban Foronda, Alessia Arteconi, Maarten Blommaert*	*Esteban Foronda*
11:15 - 11:35	421	Topology Optimization Of Actuatable Porous Lattices for Programmable Permeability	*Nicola Ferro, Giacomo Speroni, Federico Ferrari, Simona Perotto Ole Sigmund*	*Nicola Ferro*
11:35 - 11:55	424	Contact Mechanism Design in Topology Optimization Using the Third Medium Contact Method	*Takahiro Nishio, Velasco Medina Iván Felipe, Takayuki Yamada*	*Takayuki Yamada*
11:55 - 12:15	426	Development of a Multi-Layered Micropolar Elastic Model for Topology Optimization of Link Mechanisms	*Yurika Sayo, Takayuki Yamada*	*Yurika Sayo*
12:15 - 12:35	439	A Multi-Material Topology Optimization Framework based on Unconstrained Material Volume Fractions	*Bernardo Leite, Mário Brás, Afzal Suleman*	*Mário Brás*

Wednesday | **16 SEPTEMBER** | 14:00 – 16:00

Room A	Topic ODS2	Optimal Design Structures		
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 Gümoes Holm, Ole Sigmund*	*Markus Holm*
15:00 - 15:20	349	How Design Code-Based Admissibility Reshapes Attainable Pareto Fronts in Nozzle Design	*Stéphane Côté, Sudip Ganguly*	*Stéphane Côté*
15:20 - 15:40	360	Disordered Network Metamaterials with Optimally-Tailored Mechanics	*Lucien Tsai, Glaucio H. Paulino*	*Lucien Tsai*
15:40 - 16:00	376	Optimization of Resonant Supports for Simultaneous Plate Vibration and Force Transmission Reduction	*Line Mardini, Claus Claeys , Elke Deckers, Bart Van Damme*	*Line Mardini*

Room B	Topic IA2	Industrial Applications		
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	*Flavio Arthur Leal Ferreira*	*Flavio Ferreira*
14:20 - 14:40	312	Explainable Fuzzy Control for Adaptive Cruise Control and Lane Change in Autonomous Highway Driving	*Amur S. ALYahmedi, Meriam Gaied, Riadh Zaier, Hussein Obeid, Hakan Gultekin*	*Amur ALYahmedi*
14:40 - 15:00	335	Interpretable Predictive Rule-Based Energy Management for Residential Balcony PV Systems with Heterogeneous Storage	*David Gögelein, Marianne von Schwerin*	*David Gögelein*
15:00 - 15:20	359	Multi-Objective Optimization in the Management of Waste-Derived Fuel Supply Chains: A Comprehensive Approach for Colombia	*Simón Herrera, Juan D. Parra, Laura A. Carmona, Raúl A.Valencia, Carlos A. Bustamante, Whady F. Flórez Escobar, Vladimir M. Tejada, Oscar Vasco-Echeverri*	*Simón Herrera*
15:20 - 15:40	404	From Natural Language to Executable Optimization Workflows, A Knowledge Graph Driven Framework for Multi Disciplinary Optimization	*Aref Aghaee Hakkak, Anton Wiberg, Mehdi Tarkian*	*Aref Hakkak*
15:40 - 16:00	477	Enhancing Online Control and Optimization of Oil Reservoirs Using Machine Learning	*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*	*Fernando Rochinha*

Wednesday | **16 SEPTEMBER** | 14:00 – 16:00

Room C	Topic TO2	Optimal Design Topology		
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, Emi lio 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 D	Topic NM1	Numerial and Computational Technique		
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	284	Identification of Ordinary Differential Equation Surrogates from Numerical Integration with Adaptive Time-Step Schemes	*Timo Bielitz, Dieter Bestle*	*Timo Bielitz*
14:20 - 14:40	423	A Hybrid Approach to Mesh Optimization with Neural Warm-Starts	*Olivier R. Gouveia, José M. Guedes, Rui B. Ruben*	*Olivier R. Gouveia*
14:40 - 15:00	429	New Algorithm for Maximizing Difference of Convex Functions	*Aharon Ben-Tal, Luba Tetraushviliy*	*Aharon Ben-Tal*
15:00 - 15:20	471	SCD Semismooth* Newton Method For Solving Stokes Problem With Stick-Slip Boundary Condition	*Vladimir Arzt , Petr Beremlijski*	*Vladimír Arzt*
15:20 - 15:40	479	Identifying the Transition Solution of Moving Inertial Objects by Optimization Techniques	*Zuzana Dimitrovova*	*Zuzana Dimitrovova*
15:40 - 16:00	489	Derivative-Free Optimization for Mixed-Variable Engineering Design	*J. F. A. Madeira*	*J. F. A. Madeira*

Wednesday | **16 SEPTEMBER** | 16:15 – 17:35

Room A	Topic T03	Optimal Design Topology		
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 B	Topic NM2	Numerial and Computational Technique		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
16:15 - 16:35	301	A Rotation-Based Regularization for Third Medium Contact With Applications to Gradient-Based Optimization	*Vilmer Dahlberg, Filip Sjövall, Anna Dalklint, Mathias Wallin*	*Vilmer Dahlberg*
16:35 - 16:55	307	Deep Gaussian Processes for Probabilistic Prediction of UAV Propeller Aerodynamics	*Heine Havneraas Røstum, Frederico Afonso, Joseph Morlier*	*Heine Røstum*
16:55 - 17:15	482	Time Integration Algorithms for Structural Optimization	*Pedro Areia , Hélder Rodrigues, José Miranda Guedes*	*Pedro Areias*
17:15 - 17:35	486	Automatic Generation of Microstructure Models with Inclusions for Composite Material Modelling	*João A.A. Pinheiro, J. M. Guedes, H. C. Rodrigues*	*João Pinheiro*

Wednesday | **16 SEPTEMBER** | 16:15 – 17:35

Room C	Topic SH1	Shape Optimization		
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 Poulios, Erik Lund, Niels Aage*	*Pedro Freitas*

Room D	Topic ODS3	Optimal Design Structures		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
16:15 - 16:35	334	Multidisciplinary Optimization of Lattice Structures for a Morphing Wing Using Neural Implicit Geometry	*Michael Kofler, Stefanie Elgeti*	*Michael Kofler*
16:35 - 16:55	365	Multiobjective Reliability-Based Design Optimization of Stochastic Structural Systems using a Compromise Programming Strategy	*Danko Jerez, Hector Jensen, Antonia Schiaffino*	*Danko Jerez*
16:55 - 17:15	442	A Continuation Method for Regularized Contact Mechanics Constrained Optimization	*Tucker Hartland, Brandon Talamini, Michael Tupek*	*Tucker Hartland*
17:15 - 17:35	460	Sensor Placement Optimization Considering Model Uncertainty and Sensor Clustering in Variable-Stiffness Composite Structures	*Haichao An*	*Haichao An*

Thursday | **17 SEPTEMBER** | 09:00 – 10:20

Room A	Topic ODS4	Optimal Design Structures		
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*

Room B	Topic TS1	Topology/Shape Optimization		
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	309	Exploring One-Shot Multigrid Preconditioning in Topology Optimization	*Oded Amir*	*Oded Amir*
09:20-09:40	363	Efficient Robust Topology Optimization for Large-Scale 3D Structures	*Junpeng Wang, Niels Aage, Ole Sigmund*	*Junpeng Wang*
09:40-10:00	345	Model Order Reduction Techniques for Fast Topology Optimization Of Broadband Vibroacoustic Systems	*Laurits Bachmann Theil, Peter Risby Andersen, Allan Peter Engsig-Karup, Niels Aage*	*Laurits Theil*
10:00-10:20	395	Extending the SERA Method to Auxetic Material Design	*Alain Garaigordobil*	*Alain Garaigordobil*

Room C	Topic TO4	Optimal Design Topology		
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	*Takehito Osuga, Ryota Shindo, Naoki Tsunekawa, Jike Han, Kozo Furuta, Shinji Nishiwaki*	*Takehito Osuga*
09:20-09:40	450	A Hybrid Density-Geometry Projection Method for the Topology Optimization of Multi-component Composite Structures	*Nicolás Cuevas-Carvajal, Ole Sigmund, Julian Norato*	*Julian Norato*
09:40-10:00	452	A Mixed-Integer Topology Optimization Framework for Powder Metallurgy Processes Leveraging Sensitivity-Guided Stochastic Search	*Kazuki Kominami , Naoyuki Ishida, Kazuhiro Izui , Shinji Nishiwaki*	*Naoyuki Ishida*
10:00-10:20	456	Multiobjective Topology Optimization: Novel Insights and a Comparison of Scalarization Strategies	*Tom De Weer, Ole Sigmund, Gabrielle Eichfelder*	*Tom De Weer*

Thursday | **17 SEPTEMBER** | 10:35 – 12:35

Room A	Topic ODS5	Optimal Design Structures		
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	*Charlotte Beauthier, Christophe Dumeunier, Rajan Filomeno Coelho, RémyNigro, Caroline Sainvitu, Annick Sartenaer*	*Charlotte Beauthier*
10:55 - 11:15	368	Stochastic Optimal Control under Parametric Uncertainty using a PDD-NARX Surrogate model	*Kyubeen Lim, Dongjin Lee*	*Kyubeen Lim*
11:15 - 11:35	369	Multi-agent Reinforcement Learning With Surrogate Models for High-Dimensional Design Optimization	*Hyunho Jang, Dongjin Lee*	*Hyunho Jang*
11:35 - 11:55	419	Optimization-Based Comparison of the Mass Efficiency of Stringer-Stiffened and Sandwich Composite Panels	*David Zerbst, Edgar Werthen, Rakshith Manikandan, Sascha Dähne, Christian Hühne*	*David Zerbst*
11:55 - 12:15	428	A Numerical Framework for Form Finding of Gridshells Considering Fabrication Uncertainties	*Matteo Bruggi, Bálint Tóth, Janos Lógó*	*Tóth Bálint*
12:15 - 12:35	430	Integrated Stiffness and Strength Optimization of Manufacturable Variable Stiffness Composite Laminates	*Felipe Fernández*	*Felipe Fernández*

Room B	Topic IA3	Industrial Applications		
TIME	ID	TITLE	AUTHORS	SPEAKER
10:35 - 10:55	322	Multi-Objective CFD-Based Design Optimisation of Top Blowing Argon Stirred Molten Steel Ladle	*Zinedine Khatir, James Bolus*	*Zinedine Khatir*
10:55 - 11:15	364	Manufacturing Cells Design in Job Shop Production Systems Using a p-Median Model and a Genetic Algorithm	*José Ribeiro*	*José Ribeiro*
11:15 - 11:35	457	Solving a Real World Supply Chain Problem by Matheuristics: Challenges and Practical Solutions	*Alexandre Checoli Choueiri, Leandro Magatão*	*Leandro Magatão*
11:35 - 11:55	488	Optimization of Parallel Ship Block Assembly with Flexible Resource Allocation	*Javier Pernas-Álvarez, Hyungjoo Cha, Jeong Hoon Kim*	*Javier Pernas-Álvarez*
11:55 - 12:15	324	Optimal Design of Seaweed Collection Conveyors Using a Multi-Objective Genetic Algorithm	*Jaein Kim, Charmi Kim, SuJin Han, ShinYoung Park, Huiju Yu, Jaehyun Yoon*	*Jaein Kim*
12:15 - 12:35	389	High-Dimensional Bayesian Optimization Applied to a Ship Energy System	*Florian Dugast, Stéphane Bénac, Pierre Marty, Pascal Chessé*	*Florian Dugast*

Thursday | **17 SEPTEMBER** | 10:35 – 12:35

Room C	Topic T05	Optimal Design Topology		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
10:35 - 10:55	306	Constrained Topology Optimization of Closed NURBS Curves for Continuous Fiber 3D Printing	*Joaquin Castro, Eduardo Fernández, José Rothkegel, Pierre Duysinx*	*Joaquin Castro*
10:55 - 11:15	310	Minimization of The Dynamic Response of Induction Motors Using The Topology Optimization Method	*Alex Ludero, Eduardo Lenz Cardoso*	*Alex Ludero*
11:15 - 11:35	320	Topology Optimization of Quantum Opto-Mechanical Systems	*Victor Pisinger, Ole Sigmund, Niels Aage*	*Victor Pisinger*
11:35 - 11:55	323	Topology Optimization and Design Robustness	*Ole Sigmund*	*Ole Sigmund*
11:55 - 12:15	321	Tailoring Robust Photonic Components using Stochastic Topology Optimization	*Philip Elbek, Rasmus Ellebæk Christiansen, Niels Aage, Ole Sigmund*	*Philip Elbek*
12:15 - 12:35	326	Topology Optimization of RF Electromagnetic Devices Using DG-FEM	*Niels Aage*	*Niels Aage*

Thursday | **17 SEPTEMBER** | 14:00 – 16:00

Room A	Topic T06	Optimal Design Topology		
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	354	Topology Optimization of Bolted Components Considering Assembly Constraints and Tool Accessibility	*Sergi Pagès, Markus Zimmermann*	*Sergi Pagès*
14:20 - 14:40	358	Broadband Optimization and Robustness to Geometric Imperfections of nanophotonic designs	*Johannes Gedeon, Philip Elbek, Rasmus Ellebæk Christiansen, Ole Sigmund*	*Johannes Gedeon*
14:40 - 15:00	362	Simultaneous Topology and Joint Position Optimization Considering Joint Load Limits	*Johannes Soika, Jakob Schenk, Markus Zimmermann*	*Johannes Soika*
15:00 - 15:20	366	Isogeometric topology optimization of plane fiber-reinforced structures using boundary techniques	*Mário Sérgio Oliveira César Filho, Hugo Luiz Oliveira, Edson Denner Leonel*	*Mário Filho*
15:20 - 15:40	375	Topology Optimized Junctions of a Strut-Braced Wing in a Concurrent Composite Optimization for a Hydrogen Aircraft	*Lander Vertonghen, Charly Mollet, Cédric Julien, François-Xavier Irisarri*	*Cédric Julien*
15:40 - 16:00	379	Manufacturability-Aware Anisotropic Topology Optimization for Concurrent Design of Fiber Orientation and Layup Surfaces	*Tsuyoshi Nomura, Hiroki Kobayashi, Yuqing Zhou, Atsushi Kawamoto*	*Tsuyoshi Nomura*

Room B	Topic IA4	Industrial Applications		
TIME	ID	TITLE	AUTHORS	SPEAKER
14:00 - 14:20	333	A Genetic Algorithm Approach to Optimal Sensor Placement in Liquid Hydrogen Fuel Tanks	*Adrian Winter, Ali Alijev, Kay Kochan*	*Adrian Winter*
14:20 - 14:40	351	A Practical Optimization Framework for High-Dimensional Aerodynamic Design Using Single- and Multi-Fidelity Bayesian Methods	*Pavel Eremeev, Ruben Sevenois, Frank Naets*	*Frank Naets*
14:40 - 15:00	411	Computational Assessment of Aerodynamic Shape Optimization for Aeroelastic Scaling: 2D Airfoil vs. 3D Wing Optimization	*Duarte Brito, Afzal Suleman, Fernando Lau, Frederico Afonso*	*Duarte Brito*
15:00 - 15:20	416	Optimization of Stiffener Concepts for High Aspect Ratio Wings: Structural Weight, Load Reduction, and Aeroelastic Performance	*Sascha Dähne, Thomas Klimmek, Matthias Schulze, David Zerbst, Rakshith Manikandan, Christian Hühne*	*Sascha Dähne*
15:20 - 15:40	475	System Modelling and Design Optimization of Wind Sails and Route for Wind Assisted Ship	*Cem Guzelbulut, Shun Ogawa, Katsuyuki Suzuki*	*Katsuyuki Suzuki*
15:40 - 16:00	462	Multi-Objective Optimization Framework for Simultaneous Design Optimization & Requirements Engineering of Electric Powertrains	*Martin Hofstetter, Dominik Lechleitner*	*Martin Hofstetter*

Thursday | **17 SEPTEMBER** | 14:00 – 16:00

Room C	Topic EI	Emerging and Multidisciplinary		
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 Mirabdollbaghi, 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 Sonavan , 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, José Madeira*	*Madalena Cunha*

Thursday | **17 SEPTEMBER** | 16:00 – 16:30

Room X	Poster Session		
ID	**TITLE**	**AUTHORS**	**SPEAKER**
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 Trbušic*	*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*

Friday | **18 SEPTEMBER** | 09:00 – 10:20

Room A	Topic TS2	Topology/Shape Optimization		
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	340	Thermomechanical Properties Optimization of L-PBF Support Structures Via Asymptotic Homogenization and Response Surfaces	*Ariangelo Hauer Dias Filho, Felipe Mariano Brandão, Rafael Thiago Luiz Ferreira, José Miranda Guedes*	*Ariangelo Filho*
09:20-09:40	372	Explicit Dynamic Topology Optimization Under Time Dependent Displacement Constraints	*Gustavo Assis da Silva*	*Gustavo Silva*
09:40-10:00	380	Shape Optimization of Nonlinear Resonant Response in 3D MEMS Structures Using Second-Order Normal Form Theory	*Marian Hörsting, Tobias Marx, Matthias Wenzel, Simon Pfingstl, Peter Degenfeld-Schonburg*	*Marian Hörsting*
10:00-10:20	443	Scaling Topology Optimization for Time Harmonic Dynamic Problems	*Boyan Lazarov, Mathias Schmidt*	*Boyan Lazarov*

Room B	Topic TO7	Optimal Design Topology		
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	390	Bi-level Optimization of Structural Topology and Actuation Layout using Multidisciplinary Design Optimization	*Marek Slebioda, Hassan Hossein Nia, Matthijs Langelaar, Gianfranco la Rocca*	*Marek Slebioda*
09:20-09:40	425	Aperiodic Lattice Metamaterials with Improved Resilience to Impact	*Andrej Cherkaev, Tyler Evans, Debdeep Bhattacharya*	*Andrej Cherkaev*
09:40-10:00	470	Multi-Material Topology Optimization of Electric Machines under Maximum Temperature, Stress and Demagnetization Constraints	*Peter Gangl, Nepomuk Krenn*	*Peter Gangl*
10:00-10:20	487	Context-Aware Deep Reinforcement Learning for Multi-Objective Topology Optimization: From Global Compliance to Local Stress Constraints	*Valentin Würz, Christian Weißenfels*	*Valentin Würz*

Room C	Topic SH2	Shape Optimization		
TIME	ID	TITLE	AUTHORS	SPEAKER
09:00 - 09:20	283	Practical Optimum Shape Design of Thin-Walled Open Cross Sections Subjected to Bi-Axial Moment and Torsion Using Soft Computing Techniques	*Mehmet Polat Saka*	*Mehmet Saka*
09:20-09:40	448	Shape Optimization in Stokes Problems With Stick-Slip Boundary Conditions	*Petr Beremlijski, Vladimír Arzt*	*Petr Beremlijski*
09:40-10:00	478	Distributionally Robust Shape and Topology Optimization	*Charles Dapogny, Franck Iutzeler, Julien Prando, Boris Thibert*	*Charles Dapogny*

Friday | **18 SEPTEMBER** | 10:35 – 12:35

Room A	Topic IA5	Industrial Aplications		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
10:35 - 10:55	292	Optimizing the Capacitated Electric Vehicle Routing Problem using Chaotic Discrete Chimp Optimization Algorithm	*Donald Davendra*	*Donald Davendra*
10:55 - 11:15	311	Design of Rigid-Flexible Satellite Control using the Sdre Method	*Luiz Carlos Gadelha de Souza*	*Luiz Souza*
11:15 - 11:35	373	Systematic Evaluation of Multi-Objective Evolutionary Algorithms for Combinatorial Electric Drivetrain Design	*Helena Käppeler, Stefan C. Schlanderer, Edmund Marth, Gerd Bramerdorfer, Alexandru-Ciprian Zavoianu*	*Helena Käppeler*
11:35 - 11:55	381	On Optimal Wave Spring	*Niels L. Pedersen*	*Niels L. Pedersen*
11:55 - 12:15	401	Optimization Approaches for Battery Pack Layout and Integration: A Review of Methods, Tools, and Research Gaps	*Mohammad Shariati Sharifi, Johan Persson*	*Mohammad Sharifi*
12:15 - 12:35	447	Gradient-Based Optimization of Sustainable Rotor Blade Designs for Large-Scale Wind Turbines	*Edgar Werthen, David Zerbst, Lennart Tönjes, Christian Hühne*	*Edgar Werthen*

Room B	Topic TO8	Optimal Design Topology		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
10:35 - 10:55	384	Topology Optimization of Surgical Suture Distribution	*Brandon Parks, Markus Gümoes Holm, Niels Aage*	*Brandon Parks*
10:55 - 11:15	386	Topology Optimization of Nonperiodic Lattices by Inverse Homogenization	*Federico Ferrari, Ole Sigmund*	*Federico Ferrari*
11:15 - 11:35	337	Truss Topology Optimization Considering Chain Effects in Local Buckling	*Fábio Conde, Cláudia Almeida, Pedro Coelho, Guilherme Rodrigues, Hugo Biscaia*	*Fábio Conde*
11:35 - 11:55	400	On Pressure-Loaded Multi-Material Structures Using Topology Optimization	*Swagatam Islam Sarkar, Prabhat Kumar*	*Swagatam Sarkar*
11:55 - 12:15	403	A Density-Based Framework for Simultaneous Topology and Joint Location Optimization of Assemblies	*Mohammad Aligholizadeh, Ronald Bartz, Julian Redeker, Thilo Franke, Thomas Vietor*	*Mohammad Aligholizadeh*
12:15 - 12:35	409	Topology and Orientation Optimization of Short-Fiber Reinforced Structures With Microstructure Control	*Jonathan Taulo Pedersen-Bjergaard, Berin Šeta, Federico Ferrari, Jon Spangenberg, Ole Sigmund, Casper Schousboe Andreasen*	*Jonathan Pedersen-Bjergaard*

Friday | **18 SEPTEMBER** | 10:35 – 12:35

Room C	Topic NM3	Numerial and Computational Technique		
TIME	**ID**	**TITLE**	**AUTHORS**	**SPEAKER**
10:35 - 10:55	341	Thermomechanical simulation and optimization of L-PBF support suctructures 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. Krulikovski, 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*

12:35 - 12:50	**Closing Ceremony**
12:50	*LUNCH*