

XXIX CONFERENCE LIGHTWEIGHT STRUCTURES IN CIVIL ENGINEERING
Thursday, November 30th

8.00-9.00				Registration of Participants
9.00-9.15				Opening Ceremony
9.15-10.00	General Lecture 1	C. Lázaro	The Search for Lightness: Learning From the Masters and Looking for New Concepts	
10.00-10.15	Session 1	D. Cornik, R. Walentyński, M. Wiśniowski	Shaking Table for Testing Civil Structures	
10.15-10.30		D. Cornik, A. Padewska-Jurczak, P. Szczepaniak, R. Walentyński, M. Wiśniowski	Aerodynamic Scale Prototype for Lightweight Structures Testing	
10.30-10.45		A. Maciejko, N. Rzeszowska	Identification of Criteria Influencing the Architectural Conceptual Design of Long-span Structures for Sports Buildings Made of Glulam Laminated Timber in Accordance With Sustainable Development	
10.45-11.00		N. Korcz-Konkol, P. Iwicki	Simplifications of the Numerical Model in the Design of Bar and Diaphragm Bracing Systems	
11.00-11.15		A. Manguri, N. Saeed, M. Szczepanski, R. Jankowski (remote presentation)	Numerical and Experimental Study of Displacement Control of Truss Structures Using Turnbuckles (remote presentation)	
11.15-11.45				Coffee Break
11.45-12.00	Session 2 Safety and Reliability of Lightweight Structures (I)	M. Kamiński, M.J. Guminiak, A. Knitter-Piątkowska, O. Kawa	Wavelet-based Stochastic Finite Element Analysis of Truss Girders	
12.00-12.15		S. Czarnecki, T. Lewiński	Minimization of the Total Potential Energy of Spatial Bar Structures Loaded With Forces and Subjected to Prescribed Displacements of Supporting Nodes, in Search of the Optimal Member Stiffnesses	
12.15-12.30		J. Szafran, K. Juszczak-Andraszyk, P. Kaszubska, E. Kubacka	Analysis of Displacements of a Lattice Tower Under Operational Conditions – Case Study	
12.30-12.45		J. Szafran, K. Juszczak-Andraszyk, P. Juszczak	Optimization Analysis of a 62-meter-high Steel Lattice Telecommunication Tower	
12.45-13.00		A. Rutkiewicz	Optimization of Elements in Uniaxially Compressed Simplex Column	
13.00-14.30				Lunch
14.30-15.00	Poster Session	1 M. Drozdowska, A. Szafrńska, A. Tomaszewska	Quantification of Mode Shape Error in Selected Techniques of Modal Identification	
		2 M. Krajewski	Experimental and Numerical Investigation of Rotational Connection Stiffness Between Selected Steel Profiles	
		3 J. Kuś	Critical Buckling Moments of Ribbed Tapered Steel I-beams	
		4 A. Piotrowski, M. Gajewski, S. Jemioło, C. Ajdukiewicz	The Influence of the Accuracy of Reproducing the Uniaxial Tensile Test of Mild Steel in the H-M Plasticity Model on the Behavior of a Perforated Thin Walled Shell Subjected to Compression	
		5 Z. Pozorski, J. Pozorska	Local Instability of Deep-profiled Sandwich Panels	
		6 U. Radoń, P. Zabojszcza	The Application of Sobol Indices in Sensitivity Analysis of Models With Uncertainty	
		7 K. Rzeszut, T. Szumigala	Numerical Model of Trapezoidal Sheet to Validate 4-point Bending Physical Experiment	
		8 M. Sondej, P. Sorn, J. Górski	Corrosion of Horizontal-axis Fuel Storage Tanks in a Probabilistic Approach	
		9 M.A. Zmuda Trzebiatowski, P. Kłosowski, K. Żerdzicki, A. Skorek, M. Koberda	Fracture Analysis of Human Orbit Under Blunt Impact	
		10 Dutkiewicz M., Jasińska D.	Application Of Wind Turbine Blade Waste In Structural Concrete	
15.00-15.45	General Lecture 2	T. Lewiński	On Optimization of Structural Topology of Load Carrying Structures	
15.45-16.00	Session 3	P. Hegyi, A. Alabedi	Experimental Investigations on Ultra-lightweight-concrete Encased Cold-formed Steel Structures: Stability Behaviour of Elements Subjected to Eccentric Compression	
16.00-16.15		P. Hegyi, A. Alabedi	Assessing the Equivalent Spring Modelling Method of Outstand Compressed Plates of Cfs Elements Encased in Ultra-lightweight Concrete	
16.15-16.30		K. Kozieł, M. Matyl, M. Wiśniowski	Numerical Verification of Calculation for Steel Shs/rhs Truss Designed According to Eurocode 3	
16.30-16.45		H. Myrcik, R. Walentyński	Investigation of Local Stability of K-span Structures	
16.45-17.00				Coffee Break
17.00-17.15	Session 4	A. Padewska-Jurczak, Z. Buliński, T. Krysiński	Determination of Wind Force Acting on an Object in the Shape of a Bent Pipe	
17.15-17.30		R. Studziński, T. Gajewski, M. Malendowski, W. Sumelka, H. Al-Rifaie, P. Sielicki	Mechanical Response of Sandwich Panels Subjected to Blast Load	
17.30-17.45		W. Szymkuć, M. Malendowski, A. Glema	What Properties Are in Demand for Lightweight Cementitious Composites Filling of Steel Tubular Columns in Terms of Fire Resistance?	
17.45-18.00		M. Jukowski, E. Błazik-Borowa, J. Bęc	Model Studies of the Passage of Mass Along a Beam	
19.00				Conference Dinner

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Friday, December 1st			
8.30-9.15	General Lecture 3	A. Ambroziak	Tensile Membrane Structures: From Materials Characterization to Structural Analysis
9.15-9.30	Session 5	A. Franus, S. Jemiolo	Constitutive Modelling of Visco-hyperelastic Fibre-reinforced Materials
9.30-9.45		P. Kłosowski	Improved Dense Net Constitutive Model for Technical Fabrics Fem Modelling
9.45-10.00		A. Padewska-Jurczak, P. Szczepaniak, R. Walentyński	Experimental and Numerical Determination of the Aerodynamic Drag Force Coefficient of Two Side-by-side Cylinders With a Smooth or Rough Surface
10.00-10.15		I. Wójcik-Grząba	Progressive Collapse of Cable Nets
10.15-10.30		K. Żółtowski, B. Łazorczyk	Analysis of the Load Capacity of the Roof of the National Stadium in Poland in Selected Failure States
10.30-10.45		M. Chen, A. Fraddosio, A. Micheletti, G. Pavone, M.D. Piccioni (remote presentation)	Efficiency of Clustered Cable-Actuation of V-Expander Tensegrity Cells (remote presentation)
10.45-11.00		Coffee Break	
11.00-11.15	Session 6 Safety and Reliability of Lightweight Structures (2)	P. Obara, M. Solovei (remote presentation)	Dynamic Instability of Geiger Dome (remote presentation)
11.15-11.30		M. Kujawa, Ł. Smakosz, K. Winkelmann, F. Jan, V. Konopińska-Zmysłowska, V. Eremeyev	A Random Field-based Simulation Identification of Possible Material Imperfection Levels of Adhesive-bonded Join
11.30-11.45		M. Kujawa, F. Jan, Ł. Smakosz, K. Winkelmann, V. Konopińska-Zmysłowska, V. Eremeyev	Application of Probabilistic Machine Learning in Failure Mechanics
11.45-12.00		D. Bysiec, S. Jaszczczyński, T. Maleska	Topology of Lightweight Structures Shaping in the Form of Spherical Domes
12.00-12.15		K. Muzyka, K. Winkelmann	A Simulation Feasibility Study on Replacing a Single Roof Structure Truss With a Beam Girder to Maintain Initial ULS and SLS Limits Fulfilment
12.15-12.30		K. Żyliński, J. Górski	Simplified Probabilistic Methods in the Analysis of Tank Deformations Caused by Non-uniform Settlement
12.30-13.00		Closing Ceremony	
13.00-14.00	Lunch		
15.00-18.00	Guided Tour in Gdańsk City Old Town		

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