

22<sup>nd</sup> International Conference  
on  
Computer Methods in Mechanics

**CMM2017**

**Organized by**

Polish Association for Computational Mechanics

Lublin University of Technology

Faculty of Civil Engineering and Architecture, Faculty of Mechanical Engineering

**Auspices**

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The CMM2017 Organizing Committee wishes all conference participants fruitful scientific discussions and pleasant impressions at the accompanying meetings and events.

*On behalf of the Organizers  
Chairman of the Organizing Committee  
Jerzy Podgórski*

# DETAILED PROGRAMME OF CMM 2017

Tuesday, 12<sup>th</sup> September 2017

17.00-21.00

Registration & Entry Reception – Lobby on the ground floor, WBiA building



Conference Venue - Lublin University of Technology  
Faculty of Civil Engineering and Architecture (WBiA building),  
40 Nadbystrzycka St., Lublin, Poland

# Wednesday, 13<sup>th</sup> September 2017

9.00-9.30	Opening Ceremony – Room AIII	
	Plenary Lectures – Room AIII Chairmen: Zenon Mróz, Michał Kleiber	
9.30-10.15	<b>Herbert A. Mang</b> <i>Evolution and verification of a kinematic hypothesis for splitting of the strain energy</i>	
10.15-10.45	<b>Jacob Oest, Erik Lund</b> <i>On 2D topology optimization of fatigue constrained problems</i>	
10.45-11.30	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS01:</b> Optimization of Structures - <i>80th Birthday Jubilee Session for Prof. Andrzej Garstecki</i> Chairmen: Bogdan Bochenek, Tomasz Lewiński	<b>MS14:</b> Numerical Analyses in Metal Structures Chairmen: Ewa Błazik-Borowa, Katarzyna Rzeszut
11.30-11.45	Michał Malendowski, Ian Burgess, Adam Glema <i>Optimisation of a new type of fire-robust beam-to-column connection</i>	Adam Mrozek, Waclaw Kuś, Tadeusz Burczyński <i>Modelling of molybdenum-based 2D materials</i>
11.45-12.00	Łukasz Mazurkiewicz, Jakub Bukala, Jerzy Małachowski <i>Coronary stent strut optimization using parametric 3D Finite Element Models</i>	Babür Delliktaş, Ali Durmuş, Hakan T. Türker, Mustafa Sönmez <i>Creep constitutive equations for predicting creep response of a P91 steel</i>
12.00-12.15	Zbigniew Pozorski, Monika Chuda-Kowalska, Robert Studziński, Jolanta Pozorska <i>Optimization of sandwich panels with a deep-profiled facing</i>	
12.15-12.30	Marcin Chybiński, Andrzej Garstecki <i>Optimal rib configuration in steel welded beams and its robustness</i>	Joanna Kłosowska, Paulina Obara, Wojciech Gilewski <i>Self-stress control of real civil engineering tensegrity structures</i>
12.30-12.45	Grzegorz Dzierżanowski <i>Customizing the engineering moduli of elasticity in the context of structural optimization</i>	Wojciech Gilewski, Anna Al Sabouni-Zawadzka <i>Dynamic properties of tensegrity structures</i>
12.45-13.00	Tomasz Łukasiak <i>Multi-parameter underlying micro-structures in the FE inverse homogenization process towards extreme isotropic composites</i>	
13.00-14.00	Lunch – Ground floor	

# Wednesday, 13<sup>th</sup> September 2017

Opening Ceremony – Room AIII		9.00-9.30
Plenary Lectures – Room AIII Chairmen: Zenon Mróz, Michał Kleiber		
<b>Herbert A. Mang</b> <i>Evolution and verification of a kinematic hypothesis for splitting of the strain energy</i>		9.30-10.15
<b>Jacob Oest, Erik Lund</b> <i>On 2D topology optimization of fatigue constrained problems</i>		10.15-10.45
Coffee Break – Ground floor		10.45-11.30
Room 235	Room 236	
<b>MS06: Biomechanics</b> Chairmen: Ewa Majchrzak, Jerzy Małachowski	<b>MS03: Adaptive Methods and Error Estimation</b> Chairmen: Waldemar Rachowicz, Witold Cecot	
Philipp Wahl, Pascal Ziegler, Peter Eberhard <i>Passive traveling wave, tonotopy, and fluid pressure distribution in the human inner ear</i>	<i>Keynote Lecture</i>	11.30-11.45
Ewa Bednarczyk, Tomasz Lekszycki <i>Effect of changes in microstructure on the growth of blood vessels and the development of osteophytes during osteoarthritis</i>	Grzegorz Zboiński <i>Convergence, error estimation and adaptivity in non-elliptic coupled electro-mechanical problems</i>	11.45-12.00
Michał Tomaszewski, Paweł Baranowski, Jerzy Małachowski, Krzysztof Damaziak <i>Analysis of artery blood flow before and after angioplasty</i>	Michał Pazdanowski <i>Error driven remeshing strategy in an elastic-plastic shakedown problem</i>	12.00-12.15
Martyna Michałowska, Tomasz Walczak, Jakub Krzysztof Grabski, Monika Grygorowicz <i>Artificial neural networks in knee injury risk evaluation among professional football players</i>	Jan Kucwaj <i>Numerical analysis of dependence between adapted mesh and assumed error indicator</i>	12.15-12.30
Jakub Bukala, Kamil Sybilski <i>Applied methodology for design of personalized exoskeletons</i>	Anna Perduta, Roman Putanowicz <i>Data structures supporting multi-region adaptive isogeometric analysis</i>	12.30-12.45
Tomasz Gajewski, Magdalena Kobielarz, Krzysztof Szajek, Tomasz Łodygowski <i>Mechanical characterization of the calcium deposit based on the micro-indentation test and the finite element method computations</i>	Magdalena Zielińska, Grzegorz Zboiński <i>Solid-to-shell transition elements in adaptive analysis of model structures of complex mechanical description</i>	12.45-13.00
Lunch – Ground floor		13.00-14.00

# Wednesday, 13<sup>th</sup> September 2017

13.00-14.00	Lunch – Ground floor	
	Plenary Lectures – Room AIII Chairmen: Jerzy Warmiński, Mieczysław Kuczma	
14.00-14.45	<b>Błażej Skoczeń</b> <i>Constitutive modelling of strain induced coupled phenomena in engineering materials applied at cryogenic temperatures</i>	
14.45-15.30	<b>Gaëtan Kerschen</b> <i>Nonlinear normal modes and resonances of mechanical systems</i>	
15.30-16.00	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS01: Optimization of Structures - 80th Birthday Jubilee Session for Prof. Andrzej Garstecki</b> Chairmen: Grzegorz Dzierżanowski, Adam Glema	<b>MS14: Numerical Analyses in Metal Structures</b> Chairmen: Tomasz Lipecki, Babür Delliktaş
16.00-16.15	Sławomir Czarnecki, Tomasz Lewiński, Tomasz Łukasiak, Paweł Wawruch <i>Design of additively manufacturable least compliant structures</i>	Jacek Szafran, Klaudia Juszczyk, Marcin Kamiński <i>Reliability analysis of structural joints in steel lattice tower – experimental and numerical study</i>
16.15-16.30	Katarzyna Tajs-Zielińska, Bogdan Bochenek <i>A heuristic approach to optimization of structural topology including self-weight</i>	Krzysztof Śledziwski <i>Fatigue assessment for selected connections of structural steel bridge components using the Finite Element Method</i>
16.30-16.45	Mirosław W. Mrzygłód <i>Alternative quasi-optimal solutions in evolutionary topology optimization</i>	Piotr Nazarko, Leonard Ziemiński <i>Force prediction in bolts of flange connections – elastic waves and soft computing approach</i>
16.45-17.00	Sławomir Czarnecki, Tomasz Lewiński <i>On material design by the Pareto optimal choice of elastic moduli distribution</i>	Rafał Grzejda <i>Determination of bolt forces and normal contact pressure between elements joined in a multi-bolted system for its assembly condition</i>
17.00-17.15	Michał Nowak, Jan Sokołowski, Antoni Żochowski <i>Structural optimization with shapes parameterization by the assumed energy density on the structural surface</i>	Katarzyna Rzeszut, Wiktor Folta, Andrzej Garstecki <i>Reliability of engineering methods of assessment the critical buckling load of steel beams</i>
17.15-17.30	Monika Mazur, Katarzyna Tajs-Zielińska, Bogdan Bochenek <i>Generation of structural topologies using efficient technique based on sorted compliances</i>	Agnieszka Łukowicz, Marcin Krajewski, Dariusz Kowalski <i>Bending capacity of the innovative cold formed GEB profile</i>
17.30-17.45	Andrzej Myśliński <i>Multimaterial topology optimization of contact problems using phase field regularization</i>	Bartłomiej M. Pokusiński, Marcin M. Kamiński <i>The influence of the response functions on the diagrid and orthogonal grillages reliability by the Stochastic iterative perturbation-based Finite Element Method</i>
17.45-18.00	Radosław Czubacki <i>Material orientation design of planar structures with prescribed anisotropy classes. Study of rhombic systems</i>	Marcin Górecki, Michał Pieńko <i>Numerical analysis of beam with sinusoidally corrugated webs</i>
19.00-22.00	Meeting of PACM Members, PART I – Room AIII, PART II – Ground floor	

# Wednesday, 13<sup>th</sup> September 2017

Lunch – Ground floor		13.00-14.00
Plenary Lectures – Room AIII Chairmen: Jerzy Warmiński, Mieczysław Kuczma		
<b>Błażej Skoczeń</b> <i>Constitutive modelling of strain induced coupled phenomena in engineering materials applied at cryogenic temperatures</i>		14.00-14.45
<b>Gaëtan Kerschen</b> <i>Nonlinear normal modes and resonances of mechanical systems</i>		14.45-15.30
Coffee Break – Ground floor		15.30-16.00
Room 235	Room 236	
<b>MS06: Biomechanics</b>	<b>MS03: Adaptive Methods and Error Estimation</b>	
Chairmen: Romuald Będziński, Waław Kuś	Chairmen: Witold Cecot, Grzegorz Zboiński	
Tomasz Klekiel, Katarzyna Arkusz, Grzegorz Sławiniński, Romuald Będziński <i>The method for numerical analysis of the damping properties of lumbar discs during high impact loads</i>	<i>Keynote Lecture</i>	16.00-16.15
Tomasz Klekiel, Grzegorz Sławiniński, Piotr Malesa, Romuald Będziński <i>Application of the smoothed particle hydrodynamics method for the modelling of the ankle joint</i>	Irena Jaworska <i>On the error analysis of the Meshless FDM and its Multipoint extension</i>	16.15-16.30
Justyna Miodowska, Jan Bielski, Magdalena Kromka-Szydek <i>Callus remodelling model</i>	Adam Zdunek, Waldemar Rachowicz <i>A mixed finite element formulation for finite elasticity of solids with two-fibre family reinforcement</i>	16.30-16.45
	Artur Krowiak <i>Kansa method for problems with multiple boundary conditions</i>	16.45-17.00
Grzegorz Kokot, Waław Kuś, Piotr Dobrzyński, Michał Sobota, Anna Smola, Janusz Kasperczyk <i>A project of bioresorbable self-expanded vascular stents</i>	Vitaliy Stelmashchuk, Heorhiy Shynkarenko <i>Numerical solution of Lord-Shulman thermopiezoelectricity dynamical problem</i>	17.00-17.15
Małgorzata Żak, Klaudia Szkoda, Celina Pezowicz <i>A finite element analysis study of the cervical spine implants</i>	Jolanta Pozorska, Zbigniew Pozorski <i>The comparison of numerical models of a sandwich panel in the context of the core deformations at the supports</i>	17.15-17.30
Jakub J. Słowiński, Konrad Kudłacik <i>The impact of stabilization configuration on bone union possibility for fractures of the distal femur</i>	Marek Klimczak, Witold Cecot <i>An hp-adaptive multiscale FEM for heterogeneous viscoelastic materials</i>	17.30-17.45
Meeting of PACM Member, PART I – Room AIII, PART II – Ground floor		19.00-22.00

# Thursday, 14<sup>th</sup> September 2017

	Plenary Lectures – Room AIII Chairmen: Tadeusz Burczyński, Jerzy Rojek	
9.45-10.30	<b>René de Borst</b> <i>Isogeometric analysis of damage and fracture in thin-walled structures</i>	
10.30-11.00	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS01:</b> Optimization of Structures - 80th Birthday Jubilee Session for Prof. Andrzej Garstecki Chairmen: Erik Lund, Michał Nowak	<b>MS11:</b> Mechanics in Engineering Problems Chairmen: Krzysztof Wilde, Ewa Błazik-Borowa
11.00-11.15	Ryszard Kutylowski, Marek Szwechłowicz <i>Topology optimization analysis of implant properties from the thighbone-implant interaction point of view</i>	Kamil Sybilski, Jerzy Małachowski <i>Modelling of muscle forces in aspect of unsymmetrical disabled driver behavior during frontal crash</i>
11.15-11.30	Tomasz Sokół <i>An improved ground structure method with adjusted displacements in empty zones</i>	Sebastian Stanisławek, Tadeusz Niezgoda <i>The ability of flexible car bonnets to mitigate the consequences of frontal impact with pedestrians</i>
11.30-11.45	Katarzyna Rzeszut, Andrzej Garstecki <i>Structural post buckling behaviour with respect to complex geometrical imperfection pattern</i>	Miroslav Pecník, Viktor Borzovič <i>Shear forces comparison of various FEM approaches in analysis of passive earth pressures reduced by controlled yielding technique</i>
11.45-12.00	Damian Sokołowski, Marcin Kamiński <i>Probabilistic homogenization of the random HDPU composite with ellipsoidal carbon black particle reinforcement by the Iterative Stochastic FEM</i>	Adam Długosz, Wiktor Klimek <i>Optimal design of UAV wing structure</i>
12.00-12.15	Mariusz Banaszekiewicz, Krzysztof Dominiczak <i>Steam turbine start-up optimization based on finite element analysis of rotor thermoelastic stresses</i>	Krzysztof Rusin, Włodzimierz Wróblewski <i>Influence of turbulence model on prediction of Tesla turbine performance</i>
12.15-12.30	Romuald Tarczewski, Michał Święciak <i>Transformation and optimization of quadrilateral lattice shells</i>	Jerzy Małachowski, Krzysztof Damaziak, Tomasz Szafranski <i>Methodology of optimization of layout of shell structure reinforcement</i>
12.30-12.45	Janusz Orkisz, Maciej Głowacki <i>On dedicated evolutionary algorithms and speed-up techniques based on estimation of convergence point of</i>	Wojciech Siekierski <i>Numerical analysis of widened deck slab of Gerber-girder bridge</i>
12.45-13.00	Jakub Krzysztof Grabski, Tomasz Walczak, Jacek Buśkiewicz, Martyna Michałowska <i>Comparison of some evolutionary algorithms for optimization of the path synthesis problem</i>	Karol Winkelmann, Filip Kłos, Mateusz Rąpca <i>Experimental study and numerical optimization of tensegrity dome models</i>
13.00-14.00	Group photo – Stairs of the Innovation Center Lunch – Ground floor	

# Thursday, 14<sup>th</sup> September 2017

Plenary Lectures – Room AIII  
Chairmen: Tadeusz Burczyński, Jerzy Rojek

**René de Borst**  
*Isogeometric analysis of damage and fracture in thin-walled structures*

9.45-10.30

**Coffee Break – Ground floor**

10.30-11.00

Room 235

Room 236

**MS04:** Modelling and Analysis of Sandwich Structures  
*Dedicated to the memory of Prof. Liviu Librescu*  
Chairmen: Ireneusz Kreja, Zbigniew Pozorski

**MS02:** Multiscale Modelling of Materials and Structures  
Chairmen: Tadeusz Burczyński, Waclaw Kuś

*Keynote Lecture*

Viacheslav V. Mokryakov  
*Numerical simulation of functionally graded plane elastic medium by finite superelement method*

11.00-11.15

Jörg Hohe  
*Non-classical effects of the transverse core compressibility on the static and dynamic response of sandwich structures*

Sylwester Samborski, Paolo S. Valvo  
*Numerical and analytical modelling of the end-loaded split (ELS) test for multi-directional coupled laminates*

11.15-11.30

Antoni John, Małgorzata John  
*The foamed structures in numerical testing*

Marek Wojciechowski  
*Statically perturbed kinematic boundary conditions for computational homogenisation of unstructured composites*

11.30-11.45

Monika Chuda-Kowalska, Michał Malendowski  
*Sensitivity analysis of sandwich panels with rectangular openings*

Natalia Paszek, Leszek Szojda, Marcin Górski  
*Preliminary determination of the boundary surface of the geopolymer on the basis of the multiaxial compression tests*

11.45-12.00

Łukasz Smakosz, Ireneusz Kreja  
*Failure mode prediction for composite structural insulated panels with MgO board facings*

Paweł Bednarek, Jan Rządkowski  
*Equilibrium paths analysis of materials with rheological properties using the chaos theory*

12.00-12.15

Iwona Wstawska, Karolina Wiśniewska  
*Numerical analysis of local buckling of three-layered beams with metal foam core*

Daniel Rypl, Martin Doškář  
*Challenges of Finite Element discretization of Wang Cubes*

12.15-12.30

Paweł Jasion, Iwona Wstawska  
*Deformation of the upper face of a sandwich beam under pure bending*

Mateusz Sitko, Łukasz Madej  
*Implementation of parallel version of cellular automata static recrystallization algorithm*

12.30-12.45

12.45-13.00

**Group photo – Stairs of the Innovation Center**  
**Lunch – Ground floor**

13.00-14.00

# Thursday, 14<sup>th</sup> September 2017

13.00-14.00	Group photo – Stairs of the Innovation Center, Lunch – Ground floor	
	Plenary Lectures – Room AIII Chairmen: Gaëtan Kerschen, Jerzy Podgórski	
14.00-14.45	<b>Holm Altenbach, Daniel Juhre</b> <i>New trends in continuum mechanics and challenges for numerical mechanics</i>	
14.45-15.30	<b>Stefano Lenci, Pierpaolo Belardinelli</b> <i>A new computational approach to improve the global analysis of dynamical systems</i>	
15.30-16.00	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS14: Numerical Analyses in Metal Structures</b> Chairmen: Andrzej Garstecki, Adam Glema	<b>MS11: Mechanics in Engineering Problems</b> Chairmen: Rafal Rusinek, Jerzy Małachowski
16.00-16.15	Tomasz I. Jedliński, Jacek Buśkiewicz <i>Numerical and experimental analyses of lighting columns in terms of passive safety</i>	Marek Lefik, Daniela Boso <i>Qualitative analysis of properties of numerical approximation of an inverse relation by suitably trained Artificial Neural Network for two examples of inverse solutions</i>
16.15-16.30	Patrycja Cyniak, Ewa Błazik-Borowa, Jacek Szer, Tomasz Lipecki, Iwona Szer <i>The choice of boundary conditions and mesh for scaffold FEM model on the basis of natural vibrations measurements</i>	Zdzisław Więckowski <i>Material point analysis of three-dimensional silo flow problem</i>
16.30-16.45	Michał Jukowski, Jarosław Bęc, Ewa Błazik-Borowa <i>Identification of the numerical model of FEM in reference to measurements in-situ</i>	Bastian Vollrath, Hartwig Hübel <i>Determination of post-shakedown quantities of a pipe bend via the Simplified Theory of Plastic Zones compared with load history dependent incremental analysis</i>
16.45-17.00	Aleksander Robak, Ewa Błazik-Borowa, Jarosław Bęc <i>Influence of Exploitation Damage on the Capacity of Scaffolding Frame Standards</i>	Andrzej Mitura, Rafal Rusinek <i>Effect of sub-loops hysteresis in SMA ear system</i>
17.00-17.15	Seiya Zenzai, Shigeru Shimizu, Yuki Chikahiro, Toshiyuki Ohkami <i>Behaviour of partially concrete-filled steel box columns under</i>	Hasan Al-Rifaie, Wojciech Sumelka <i>Numerical assessment of a blast-protective steel gate with a new damping system</i>
17.15-17.30	Piotr Sulich, Władysław Egner, Halina Egner <i>Numerical analysis of thermomechanical low cycle fatigue</i>	Jerzy Małachowski, Aleksandra Szafrńska <i>Simulation of energy absorption behaviour of structures manufactured by LENS technology</i>
17.30-17.45	Dariusz Bojczuk, Wojciech Szeleblak <i>Optimal repair and reinforcement of plates</i>	Damian Szubartowski, Artur Ganczarski <i>Problem of FGM TBC coated cylinder</i>
17.45-18.00	Mariusz Maślak, Michał Pazdanowski, Piotr Woźniczka <i>Numerical validation of selected computer programs in nonlinear analysis of steel frame exposed to fire</i>	Irina Trubchik, Ludmila Evich, Evgeniy Ladasha <i>Computational model of the deformation of thin gradient coating lying on nondeformable foundation</i>
19.00-23.00	Gala Dinner – Lublin Philharmonic Hall, 5 M. Curie-Skłodowskiej, St.	

# Thursday, 14<sup>th</sup> September 2017

Group photo – Stairs of the Innovation Center, Lunch – Ground floor		13.00-14.00
Plenary Lectures – Room AIII Chairmen: Gaëtan Kerschen, Jerzy Podgórski		
<b>Holm Altenbach, Daniel Juhre</b> <i>New trends in continuum mechanics and challenges for numerical mechanics</i>		14.00-14.45
<b>Stefano Lenci, Pierpaolo Belardinelli</b> <i>A new computational approach to improve the global analysis of dynamical systems</i>		14.45-15.30
Coffee Break – Ground floor		15.30-16.00
Room 235	Room 236	
<b>MS04: Modelling and Analysis of Sandwich Structures</b> <i>Dedicated to the memory of Prof. Liviu Librescu</i> Chairmen: Jörg Hohe, Paweł Jasion	<b>MS02: Multiscale Modelling of Materials and Structures</b> Chairmen: Piotr Fedeliński, Adam Długosz	
Jan Jaśkowicz, Piotr Pluciński <i>Three-dimensional analysis of sandwich plates with functionally graded cores using a two-dimensional numerical model</i>	Konrad Perzyński, Jiangting Wang, Krzysztof Radwański, Łukasz Madej <i>Development of the numerical procedure for identification of the random cellular automata finite element fracture model parameters based on the in-situ tensile test</i>	16.00-16.15
Szymon Hernik <i>Numerical simulation of FGM materials using functionally graded finite elements</i>	Wacław Kuś <i>Memetic optimization algorithm with many global optimization methods</i>	16.15-16.30
Krzysztof Puchała, Elżbieta Szymczyk, Jerzy Jachimowicz, Paweł Bogusz <i>Gradient material model in analysis of mechanical joints of CFRP laminate</i>	Adam Legwand, Mateusz Sitko, Kazimierz Michalik, Konrad Perzyński, Łukasz Madej <i>Development of efficient data transfer protocols in the random cellular automata finite element dynamic recrystallization model</i>	16.30-16.45
Bartosz Kawecki, Jerzy Podgórski <i>Numerical model of glulam beam delamination in dependence on cohesive strength</i>	Jarosław Gawryluk, Andrzej Mitura, Andrzej Teter <i>Influence of the piezoelectric effect on the dynamic behaviour of an active blade</i>	16.45-17.00
Konrad Dadej, Barbara Surowska, Jarosław Bieniaś <i>Numerical/phenomenological model for fatigue life prediction of hybrid laminates</i>	Adam Długosz, Tomasz Schlieter <i>Multiobjective optimization of 3D porous thermoelastic structures</i>	17.00-17.15
Katarzyna Ciesielczyk, Robert Studziński <i>Influence of sandwich panels flexural stiffness on the capacity of thin-walled elements</i>	Krzysztof Nepelski, Ewa Błazik-Borowa <i>The methodology of choice Cam-Clay model parameters for loess subsoil</i>	17.15-17.30
Krzysztof Kula, Tomasz Socha, Arkadiusz Denisiewicz <i>Numerical analysis of the wood-base composite beam strengthened in the weakened zones by CFRP</i>		17.30-17.45
		17.45-18.00
Gala Dinner – Lublin Philharmonic Hall, 5 M. Curie-Skłodowskiej, St.		19.00-23.00

# Friday, 15<sup>th</sup> September 2017

	Plenary Lectures – Room AIII Chairmen: Bohdan Mochnacki, Giuseppe Rega	
9.00-9.45	<b>Balakumar Balachandran</b> <i>GPU based computational dynamics</i>	
9.45-10.30	<b>Ewa Majchrzak</b> <i>Selected problems of bioheat transfer modelling</i>	
10.30-11.00	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS02: Multiscale Modelling of Materials and Structures</b> Chairmen: Maciej Pietrzyk, Łukasz Madej	<b>MS11: Mechanics in Engineering Problems</b> Chairmen: Shigeru Shimizu, Marek Lefik
11.00-11.15	Marcin Hatłas, Witold Beluch <i>Multiscale global identification of porous structures</i>	Anna Knitter-Piątkowska, Michał Guminiak <i>Defect detection in plates using dynamic response signals and Discrete Wavelet Transform</i>
11.15-11.30	Piotr Fedeliński <i>Effective elastic properties of sintered materials with branched cracks</i>	Krzysztof Ziopaja, Leszek Różański <i>Damage detection in a concrete slab using IR thermography and wavelet transform</i>
11.30-11.45	Krzysztof Wawrzyk, Szymon Nosewicz, Jerzy Rojek, Piotr Kowalczyk <i>A constitutive model and numerical simulation of sintering processes at macroscopic level</i>	Józef Jonak, Anna Machrowska <i>xEMD procedures as a data- assisted filtering method</i>
11.45-12.00	Józef Horabik, Piotr Parafiniuk, Marek Molenda <i>Pressure distribution in bulk of seeds in a shallow model silo. Experiments and DEM simulations</i>	Péter Horváth <i>Efficiency and accuracy investigation of the Craig-Bampton method through continuum vibration tests</i>
12.00-12.15	Witold Ogierman, Grzegorz Kokot <i>Generation of representative volume elements of heterogeneous materials with distributed orientations of inclusions</i>	Krzysztof Kozik, Rafal Rusinek <i>FEM model of middle ear prosthesis with pseudo-elastic effect</i>
12.15-12.30	Witold Beluch, Marcin Hatłas <i>Numerical homogenization of inhomogeneous media with imprecise parameters</i>	Rafal Rusinek, Marcin Szymanski <i>Middle ear vibrations - experimental and numerical study</i>
12.30-12.45		Renáta Pidl <i>Analytical approach to determine vertical dynamics of a semi-trailer truck from the point of view of goods protection</i>
12.45-13.00		Marian J. Łopatka, Andrzej Typiak, Łukasz Rykała, Magdalena Kijek <i>Dynamics of omnidirectional unmanned rescue vehicle with mecanum wheels</i>
13.00-14.00	Lunch – Ground floor	

# Friday, 15<sup>th</sup> September 2017

Plenary Lectures – Room AIII  
Chairmen: Bohdan Mochnacki, Giuseppe Rega

**Balakumar Balachandran**  
*GPU based computational dynamics*

9.00-9.45

**Ewa Majchrzak**  
*Selected problems of bioheat transfer modelling*

9.45-10.30

Coffee Break – Ground floor

10.30-11.00

Room 235

Room 236

**MS13: Non-conventional Methods for Solid Mechanics**

**MS05: Numerical Heat and Mass Transfer**

Chairmen: Zdzisław Nowak, Tomasz Błaszczak

Chairmen: Bohdan Mochnacki, Adam Długosz

*Keynote Lecture*

Marek Jasiński

*Numerical analysis of soft tissue damage process caused by laser action*

11.00-11.15

Stanisław Stupkiewicz, Henryk Petryk  
*Minimal gradient-enhancement of classical crystal plasticity: finite-element treatment and size effects*

Marek Paruch, Łukasz Turchan

*Mathematical modelling of the destruction degree of cancer under the influence of a RF hyperthermia*

11.15-11.30

Tomasz Błaszczak  
*Comparison of two types of fractional operators including both the left and right fractional derivatives*

Bohdan Mochnacki, Ewa Majchrzak, Marek Paruch  
*Soft tissue freezing process. Identification of the dual-phase lag model parameters using the evolutionary algorithm*

11.30-11.45

Alicja Piasecka-Belkhat, Anna Korczak  
*Numerical modelling of transient heat transport in a two-layered metal film using the fuzzy lattice Boltzmann method with  $\alpha$ -cuts*

11.45-12.00

Michał Szymczyk, Wojciech Sumelka, Marcin Nowak  
*On selected aspects of fractional plasticity*

Alicja Piasecka-Belkhat, Anna Korczak  
*Modelling of thermal processes proceeding in a thin gold film using the lattice Boltzmann method with interval source function*

12.00-12.15

Jerzy Rojek, Aleksander Zubelewicz, Nikhil Madan, Szymon Nosewicz  
*New formulation of the discrete element method*

Jolanta Dziaćkiewicz, Ewa Majchrzak  
*Numerical analysis of laser ablation using the axisymmetric two-temperature model*

12.15-12.30

Waldemar Mucha, Wacław Kuś  
*Mountain bicycle frame testing as an example of practical implementation of hybrid simulation using RTFEM*

Paweł Stąpór  
*Enhanced heat flux prediction using X-FEM and a recovery procedure for discontinuous problems*

12.30-12.45

Christian Liebold, Wolfgang H. Müller, Belal Dawwas  
*Hermite finite elements in numerics of second gradient elasticity*

Arkadiusz Ryfa, Marek Rojczyk, Wojciech Adamczyk  
*On influence of the approximation parameters on the reconstructed heat transfer coefficient for an array of jets*

12.45-13.00

Lunch – Ground floor

13.00-14.00

# Friday, 15<sup>th</sup> September 2017

13.00-14.00		Lunch – ground floor	
		Room AIII	Room 133
		<b>MS09:</b> Computational Methods for Structural Dynamics and Vibration Problems Chairmen: Jarosław Latański, Daniele Zulli	<b>MS12:</b> Numerical Analyses for Concrete Structures Chairmen: Herbert A. Mang, Mieczysław Kuczma
14.00-14.15	Lech Murawski <i>Boundary conditions modelling method of marine main engine body</i>		<i>Keynote Lecture</i> Jiao Long Zhang, Thomas Schlappal, Johannes Kalliauer, Yong Yuan, Herbert A. Mang, Bernhard Pichler <i>Combined experimental-computational approach to multiscale structural analysis of segmented tunnel linings</i>
14.15-14.30	Marcin Jasiewicz, Bartosz Powalka <i>Prediction of turning stability using receptance coupling</i>		
14.30-14.45	Andrzej Weremczuk, Rafał Rusinek, Jerzy Warmiński <i>Bifurcation and stability analysis of a nonlinear milling process</i>		Paweł M. Lewiński, Sławomir Dudziak <i>Nonlinear interaction analysis of RC cylindrical tank with subsoil by adapting two kinds of constitutive models for ground and structure</i>
14.45-15.00	Li Zhang, Gabor Stepan <i>Stability calculation of an elastic rod with delayed boundary conditions</i>		Michał Szczecina, Andrzej Winnicki <i>Analysis of “D” regions of RC structures based on example of frame corners</i>
15.00-15.15	Piotr Brzeski, Jerzy Wojewoda, Tomasz Kapitaniak, Juergen Kurths, Przemysław Perlikowski <i>Can sample-based approach outperform the classical dynamical analysis? - experimental confirmation of the basin stability method</i>		Aleksander Matuszak, Piotr Pluciński <i>A compact algorithm for semi-analytical computing of internal forces in RC cross-section</i>
15.15-15.30	Przemysław Litewka, Roman Lewandowski <i>Influence of elastic supports on non-linear steady-state vibrations of Zener material plates</i>		Zdzisław Pawlak, Anna Knitter-Piątkowska <i>Influence of the wavelet order on proper damage location in plate structures</i>
15.30-15.45	Jan Jaśkowiec, Piotr Pluciński, Anna Stankiewicz <i>Three-dimensional analysis of free vibrations in homogeneous and laminated plates using two-dimensional numerical model</i>		Krzysztof Cichocki <i>Development of damage in concrete plates under impact loads</i>
15.45-16.00	Emil Manoach <i>Vibration based methods for damage detection of plates</i>		Iwona Jankowiak <i>Case study of flexure and shear strengthening of RC beams by CFRP using FEA</i>
16.00-16.30		Coffee Break – Ground floor	

Lunch – Ground floor		13.00-14.00
Room 235	Room 236	
<b>MS13: Non-conventional Methods for Solid Mechanics</b>	<b>MS05: Numerical Heat and Mass Transfer</b>	
Chairmen: Waław Kuś, Tomasz Błaszczyk	Chairmen: Alicja Piasecka-Belkhat, Marek Jasiński	
Balbina Wcisło, Jerzy Pamin, Katarzyna Kowalczyk-Gajewska, Andreas Menzel <i>Numerical analysis of ellipticity condition for large strain plasticity</i>	Jan Jaśkowiec <i>Local discontinuous Galerkin method with arbitrary polygonal finite elements</i>	14.00-14.15
Marzena Mucha, Balbina Wcisło, Maria Wrona, Jerzy Pamin <i>Shear banding in large strain plasticity – influence of specimen dimensions</i>	Mariusz Banaszekiewicz, Janusz Badur <i>Practical methods for online calculation of thermoelastic stresses in steam turbine components</i>	14.15-14.30
Paulina Zimmnicka, Zdzisław Więckowski <i>Equilibrium finite element method for Kirchhoff's plate</i>	Dorota Homa, Włodzimierz Wróblewski <i>3D modelling of cavitation structures on a ClarkY foil</i>	14.30-14.45
Ewelina Misztalska, Zdzisław Więckowski <i>Equilibrium based finite element method in axi-symmetric problems</i>	Piotr Tofiło, Wojciech Węgrzyński <i>Spatial distribution of thermal radiation – verification of the finite volume method</i>	14.45-15.00
Krzysztof Szajek, Wojciech Sumelka <i>Identification of deteriorated nanostructures</i>	Ziemowit Ostrowski, Zbigniew Buliński, Arkadiusz Ryfa, Wojciech Adamczyk <i>Inverse approach for nondestructive determination of thermal conductivity of solid materials</i>	15.00-15.15
Jacek Ptaszny <i>Parallel fast multipole boundary element method applied to computational homogenization</i>	Adam Długosz, Iwona Pokorska, Michał A. Glinicki, Roman Jaskulski <i>Evolutionary computation in identification of thermophysical properties of hardening concrete</i>	15.15-15.30
Arkadiusz Poteralski, Grzegorz Dziaekiewicz <i>Artificial immune system for effective properties optimization of magnetoelectric composites</i>	Wojciech Adamczyk, Arkadiusz Ryfa, Tadeusz Kruczek, Ziemowit Ostrowski, Ryszard Bialecki <i>Novel, nondestructive techniques of determining heat conductivity</i>	15.30-15.45
Grzegorz Dziaekiewicz <i>Dual number algebra method for Green's function derivatives in 3D magneto-electro-elasticity</i>		15.45-16.00
Coffee Break – Ground floor		16.00-16.30

# Friday, 15<sup>th</sup> September 2017

16.00-16.30		Coffee Break – Ground floor	
		Room AIII	Room 133
		<b>MS09:</b> Computational Methods for Structural Dynamics and Vibration Problems Chairmen: Daniele Zulli, Li Zhang	<b>MS08:</b> Coupled Problems in Concrete Modelling Chairmen: Dariusz Gawin, Jerzy Pamin
16.30-16.45	Jarosław Latański, Marcin Kowalczyk <i>Analytical and experimental modal analysis of a composite circumferentially asymmetric stiffness box beam</i>		<i>Keynote Lecture</i>  Brubeck L. Freeman, Peter J. Cleall, Anthony D. Jefferson <i>A numerically efficient approach for solving reactive transport problems</i>
16.45-17.00	Zofia Szmit, Jerzy Warmiński <i>Synchronisation phenomenon in the de-tuned three blades rotor driven by regular or chaotic oscillations</i>		
17.00-17.15	Jerzy Warminski <i>Nonlinear vibrations of a three blades rotor</i>		Matteo Pachera, Francesco Pesavento, Bernhard A. Schrefler, Dariusz Gawin, Arkadiusz Witek <i>Coupled numerical simulation of fire in tunnel</i>
17.15-17.30	Jan Kiciński <i>Analysis of the vibrations of the low power ORC turbines operating under conditions of strongly developed hydrodynamic instability</i>		Witold Grymin, Marcin Koniorczyk, Francesco Pesavento, Dariusz Gawin <i>Macroscopic and mesoscopic approach to modelling the alkali-silica reaction in concrete</i>
17.30-17.45	Jan Kyzioł, Andrzej Okniński <i>Metamorphoses of amplitude curves in a system of coupled oscillators: the case of degenerate singular points</i>		Magdalena German, Jerzy Pamin <i>Numerical model of RC beam response to corrosion</i>
17.45-18.00	Bartłomiej Błachowski, Witold Gutkowski <i>Lagrangian dynamics based approach for 3D modelling of human gait</i>		
18.00-18.15	Andres Garcia, Felix Sorribes-Palmer, Gustavo Alonso <i>Application of Steinberg vibration fatigue model for structural verification of space instruments</i>		
19.00-21.00	Meeting of the Section of Systems Dynamics (Committee of Mechanics PAS) – Room 133		

# Friday, 15<sup>th</sup> September 2017

Coffee Break – Ground floor		16.00-16.30
Room 235	Room 236	
<b>MS13: Non-conventional Methods for Solid Mechanics</b> Chairmen: Ewelina Pazera, Waław Kuś	<b>MS07: Numerical Simulation of Solid Mechanics Experiments</b> Chairmen: Radosław J. Mania, Ewa Błazik-Borowa	
Zdzisław Nowak, Marcin Nowak, Jacek Widłaszewski, Piotr Kurp <i>Experimental and numerical investigation on laser-assisted bending of pre-loaded metal plate</i>	Andrzej Teter, Zbigniew Kołakowski <i>Numerical modelling of thin-walled Z-columns made of general laminates subjected to uniform shortening</i>	16.30-16.45
Ewaryst Wierzbicki, Dorota Kula <i>Effective macroscopic description for heat conduction in periodic composites</i>	Patryk Różyło, Hubert Dębski, Jan Kral <i>Buckling and limit states of composite profiles with top-hat channel section subjected to axial compression</i>	16.45-17.00
Ewelina Pazera, Jarosław Jędrzyak <i>Thermomechanical analysis of functionally graded laminates using tolerance approach</i>	Paweł Wysmulski, Andrzej Teter, Hubert Dębski <i>Effect of eccentricity of load on the buckling of thin-walled composite C-columns</i>	17.00-17.15
Olga Sedova, Oleg Iakushkin <i>A containerized CAD to FEM infrastructure solution based on open source projects</i>	Mariusz Urbaniak, Radosław J. Mania, Zbigniew Kołakowski <i>Influence of the distortional-lateral buckling mode on the load carrying capacity of thin-walled short channels</i>	17.15-17.30
Tomasz Nowicki <i>A concept of Discrete Element Method based on overlapping regions of spherical particles for modelling solid body behaviour</i>	Monika Kamocka, Radosław J. Mania <i>Influence of debonding on mechanical properties of fiber reinforced composites</i>	17.30-17.45
Artur Wirowski, Paweł Szczerba <i>Derivation of equations of the model of the dynamic behaviour of the three-dimensional atmospheric cloud of electrically charged ice crystals under the influence of electrostatic forces</i>	Grzegorz Kimbar, Paweł Roszkowski, Paweł Sulik <i>Substitute load optimisation in full-scale laboratory tests of orthotropic plates</i>	17.45-18.00
	Gabriella Bolzon, Mahdiah Shahmardani <i>Numerical simulation of non-standard tensile tests of thin metal foils</i>	18.00-18.15
Meeting of Polish Association for Wind Engineering – Room 235		19.00-21.00

# Saturday, 16<sup>th</sup> September 2017

	Plenary Lecture – Room AIII Chairmen: Błażej Skoczeń, Jerzy Warmiński	
9.00-9.45	<b>Giuseppe Rega, Valeria Settimi</b> <i>Nonlinear dynamics and control in macro- and micro-mechanics: some computational issues</i>	
9.45-10.15	Coffee Break – Ground floor	
	Room AIII	Room 133
	<b>MS09:</b> Computational Methods for Structural Dynamics and Vibration Problems Chairmen: Jarosław Latański, Li Zhang	<b>MS12:</b> Numerical Analyses for Concrete Structures Chairmen: Dariusz Gawin, Andrzej Winnicki
10.15-10.30	Joanna Rękas, Rafał Rusinek <i>Modelling of shape memory alloy oscillator and its application to middle ear structural reconstruction</i>	Peter Harsanyi, Sandra Ofner, Norbert Randl <i>Finite element modeling of shear connectors in steel – UHPFRC-composite members</i>
10.30-10.45	Marek Kozięń, Adam Niesłony <i>Estimation of life time in fatigue analysis of horn structures</i>	Michał Demby, Mieczysław Kuczma <i>Finite element analysis of ultra-high performance concrete beams</i>
10.45-11.00	Daniele Zulli, Giuseppe Piccardo, Angelo Luongo <i>Dry galloping in inclined cables under stationary wind</i>	Paweł Baranowski, Jerzy Małachowski <i>Possibilities of rock constitutive modelling and simulation</i>
11.00-11.15	Volodymyr Sakharov <i>Dynamic model reduction in the nonlinear interaction simulation of the neighboring high-rise buildings on the soil base</i>	Jakub Gontarz, Jerzy Podgórski, Michał Siegmund <i>Comparison of crack propagation analyses in a pull-out test</i>
11.15-11.30	Waldemar Łatas <i>Optimal positions and parameters of translational and rotational mass dampers in beams subjected to random excitations</i>	Cezary Szydłowski, Jarosław Górski, Marcin Stienss <i>Numerical simulation of asphalt mixtures fracture using continuum models</i>
11.30-11.45	Daniel Ziemianski <i>Technique for measurement of the noise of a sensor for low frequency seismic vibration</i>	Małgorzata Śliwa, Arkadiusz Denisiewicz <i>The study of selected properties of concrete made on the basis of aggregate recycling</i>
11.45-12.15	Coffee Break – Ground floor	

# Saturday, 16<sup>th</sup> September 2017

Plenary Lecture – Room AIII  
Chairmen: Błażej Skoczeń, Jerzy Warmiński

**Giuseppe Rega, Valeria Settimi**  
*Nonlinear dynamics and control in macro- and micro-mechanics: some computational issues*

9.00-9.45

Coffee Break – Ground floor

9.45-10.15

Room 235

Room 236

**MS10:** Computer Methods in Wind Engineering

**MS07:** Numerical Simulation of Solid Mechanics Experiments

Chairmen: Ireneusz Kreja, Andrzej Flaga

Chairmen: Grzegorz Litak, Tomasz Kubiak

Agnieszka Porowska, Andrzej Flaga  
*Turbulent wind action on a slender footbridge*

Katarzyna Falkowicz, Hubert Dębski, Andrzej Teter  
*Design solutions for improving the lowest buckling loads of a thin-walled laminated plate with a notch*

10.15-10.30

Piotr Krajewski, Łukasz Flaga, Andrzej Flaga  
*Aerodynamic calculations of the Sienna Towers buildings complex with respect to human vibrations comfort of their users*

Viorel Ungureanu, Maria Kotelko  
*Behaviour of thin-walled cold-formed steel members in eccentric compression*

10.30-10.45

Tomasz Lipecki, Paulina Jamińska-Gadomska,  
Ewa Błazik-Borowa  
*Dynamic wind action on façade scaffoldings*

Adrian Gliszczyński, Tomasz Kubiak  
*Impact damage analysis of thin composite plates with different layer arrangement*

10.45-11.00

Marta Poćwierz, Katarzyna Zielonko-Jung  
*Wind conditions in urban layout- numerical and experimental research*

Tomasz Kubiak, Rafał Naze, Hubert Dębski, Kamil Wawer  
*Numerical models of BVID in laminate structures*

11.00-11.15

Piotr Wielgos, Tomasz Lipecki, Andrzej Flaga  
*Simulation of stochastic wind action on transmission power lines*

Małgorzata John, Antoni John, Wojciech Skarka  
*Numerical examination of like-honeycomb structures*

11.15-11.30

Paulina Jamińska-Gadomska, Tomasz Lipecki,  
Jerzy Podgórski  
*Wind flow around a church - case study*

Dominik Drabik, Marek Langner, Sebastian Kraszewski  
*Mechanical properties of POPC lipid vesicle determined using molecular dynamics simulations*

11.30-11.45

Coffee Break – Ground floor

11.45-12.15

# Saturday, 16<sup>th</sup> September 2017

11.45-12.15			Coffee Break – Ground floor	
			Room AIII	Room 133
			<b>MS09:</b> Computational Methods for Structural Dynamics and Vibration Problems Chairmen: Jarosław Latalski, Daniele Zulli	<b>MS12:</b> Numerical Analyses for Concrete Structures Chairmen: Zdzisław Więckowski, Anna Halicka
12.15-12.30	Elżbieta Augustyn, Daniel Ziemiański <i>Active control of half car suspension system based on linear quadratic regulator</i>			Marek Lechman, Andrzej Stachurski <i>Determination of stresses in RC eccentrically compressed members using optimization methods</i>
12.30-12.45	Maciej Wasilewski, Dominik Pisarski, Robert Konowrocki, Czesław Bajer <i>New efficient adaptive control of torsional vibrations induced by sudden nonlinear disturbances</i>			Artur Kotarski, Zdzisław Więckowski <i>Finite element and plasticity models in analysis of confine concrete column</i>
12.45-13.00	Marek Balcerzak, Danylo Pikunov, Artur Dąbrowski <i>Tuning the control system of a nonlinear object with discontinuity by means of the new method of Lyapunov exponents estimation</i>			Alfred Strauss, Vladimír Benko, Benjamin Täubling, Adrián Valašik <i>Reliability assessment of slender concrete columns at the stability failure</i>
13.00-13.15	Krzysztof Kęćik, Andrzej Mitura, Stefano Lenci, Jerzy Warminski <i>Multiple solutions and corresponding energy output from a nonlinear maglev harvester</i>			Szymon Seręga, Adam Wosatko <i>Numerical prediction for fire resistance of RC beams</i>
13.15-13.30	Michał Gawlicki, Łukasz Jankowski <i>Identification of moving loads using the <math>l_1</math> norm minimization</i>			Łukasz Jabłoński <i>Numerical analyses and laboratory testing of concrete composite T-shaped beams without interface adhesion</i>
13.30-13.45	Jan Łuczko, Urszula Ferdek, Waldemar Łatas <i>Nonlinear analysis of shock absorber with amplitude dependent damping</i>			
13.45-14.00				
14.00-14.30	Closing Ceremony – Room AIII			
14.30-15.30	Lunch – Ground floor			

# Saturday, 16<sup>th</sup> September 2017

Coffee Break – Ground floor		11.45-12.15
Room 235	Room 236	
<b>MS10:</b> Computer Methods in Wind Engineering Chairmen: Jarosław Górski, Tomasz Lipecki	<b>MS07:</b> Numerical Simulation of Solid Mechanics Experiments Chairmen: Marek Langner, Andrzej Teter	
Michał Wichrowski, Piotr Krzyżanowski, Stanisław Stupkiewicz <i>Velocity-based monolithic approach to fluid-structure interaction problem: formulation, stabilization and preconditioning strategy</i>	Piotr W. Sielicki, Stanisław Gogojewicz, Arkadiusz Kornowicz, Piotr Mazur <i>External ballistics: flying bullet temperature change</i>	12.15-12.30
Wojciech Węgrzyński, Marek Konecki <i>Influence of the fire location and the size of a compartment on the heat and smoke flow out of the compartment</i>	Peter Harris, Mustafa Arafa, Grzegorz Litak, Chris R. Bowen, Joanna Iwaniec <i>Modeling of a bistable laminate for broadband energy harvesting</i>	12.30-12.45
Wojciech Węgrzyński, Grzegorz Krajewski, Grzegorz Kimbar <i>A concept of external aerodynamic elements in improving the performance of natural smoke ventilation in wind conditions</i>	Michał Pieńko, Ewa Błazik-Borowa <i>Verification of the numerical model of insert-type joint of scaffolding in relation of experimental research</i>	12.45-13.00
Grzegorz Krajewski, Wojciech Węgrzyński <i>Use of Computational Fluid Dynamics in optimization of natural smoke ventilation from a historical shopping mall – Case Study</i>	Sylwester Samborski, Jakub Rzeczkowski <i>Numerical modeling and experimental verification of the DCB test configuration applicability to mechanically coupled composite laminates</i>	13.00-13.15
Grzegorz Krajewski, Przemysław Suchy <i>Verification of CFD model of plane jet used for smoke free zone separation in case of fire</i>	Sebastian Stanisławek, Paweł Dziewulski, Grzegorz Sławiński <i>Application of bus seat buffer to mitigate frontal crash effects</i>	13.15-13.30
Renata Gnatowska <i>Effect of inlet conditions for numerical modelling of the urban boundary layer</i>		13.30-13.45
Mateusz Jakubowski, Roman Starosta, Paweł Fritzkowski <i>Kinematics of a vertical axis wind turbine with a variable pitch angle</i>		13.45-14.00
<b>Closing Ceremony – Room AIII</b>		14.00-14.30
<b>Lunch – Ground floor</b>		14.30-15.30

# CONFERENCE FRAMEWORK PROGRAMME

## Wednesday, 13<sup>th</sup> September

Time	AllI	113	235	236
9:00-9:30	<i>Opening Ceremony</i>			
9:30-10:15	PL1			
10:15-10:45	MS01			
10:45-11:30	<i>Coffee Break</i>			
11:30-13:00	MS01	MS14	MS06	MS03
13:00-14:00	<i>Lunch</i>			
14:00-14:45	PL2			
14:45-15:30	PL3			
15:30-16:00	<i>Coffee Break</i>			
16:00-18:00	MS01	MS14	MS06	MS03
18:00-19:00				
19:00-22:00	<i>Meeting of PACM Members</i>			

## Thursday, 14<sup>th</sup> September

Time	AllI	113	235	236
9:45-10:30	PL4			
10:30-11:00	<i>Coffee Break</i>			
11:00-13:00	MS01	MS11	MS04	MS02
13:00-14:00	<i>Lunch &amp; group photo</i>			
14:00-14:45	PL6			
14:45-15:30	PL7			
15:30-16:00	<i>Coffee Break</i>			
16:00-18:00	MS14	MS11	MS04	MS02
18:00-19:00				
19:00-23:00	<i>Gala Dinner</i>			

## Friday, 15<sup>th</sup> September

Time	AllI	113	235	236
9:00-9:45	PL8			
9:45-10:30	PL9			
10:30-11:00	<i>Coffee Break</i>			
11:00-13:00	MS02	MS11	MS13	MS05
13:00-14:00	<i>Lunch</i>			
14:00-16:00	MS09	MS12	MS13	MS05
16:00-16:30	<i>Coffee Break</i>			
16:30-18:15	MS09	MS08	MS13	MS07
18:15-19:00				
19:00-23:00	<i>Meetings of: PAS SD Section, PAWE</i>			

## Saturday, 16<sup>th</sup> September

Time	AllI	113	235	236
9:00-9:45	PL10			
9:45-10:15	<i>Coffee Break</i>			
10:15-11:45	MS09	MS12	MS10	MS07
11:45-12:15	<i>Coffee Break</i>			
12:15-14:00	MS09	MS12	MS10	MS07
14:00-14:30	<i>Closing Ceremony</i>			
14:30-15:30	<i>Lunch</i>			

# FULL-LENGTH PAPERS PUBLICATIONS

**Full-length papers** contributed and **presented** at the CMM2017 by plenary lecturers and other speakers can be published after the review process in AIP Conference Proceedings (<http://aip.scitation.org/journal/apc>).

AIP Conference Proceedings are indexed in a number of services, including these leading databases:

- The Conference Proceedings Citation Index (part of Web of Science),
- Scopus (Elsevier),
- Inspec,
- Chemical Abstracts Service (CAS),
- Astrophysics Data System (ADS).

**Only papers presented at the Conference can be published in AIP Conference Proceedings!**

Full papers should be prepared according to the AIP Conference Proceedings guidelines (<http://aip.scitation.org/apc/authors/preppapers>) and uploaded through the Conference system (<https://systemcoffee.pl/>) until 15 October 2017.

Participants of CMM 2017 are invited to publish the full papers in Computer Assisted Methods in Engineering and Science (CAMES) (<http://comes.ippt.pan.pl>).

CAMES is a Journal which is published under the auspices of ECCOMAS (<http://www.eccomas.org>).

Persons who are interested in publishing in CAMES are asked to contact Co-Editor-in-Chief of ECCOMAS - prof. T. Burczyński ([tburczynski@ippt.pan.pl](mailto:tburczynski@ippt.pan.pl)) and make a submission by the system

<http://comes.ippt.pan.pl/index.php/comes/about/submissions>

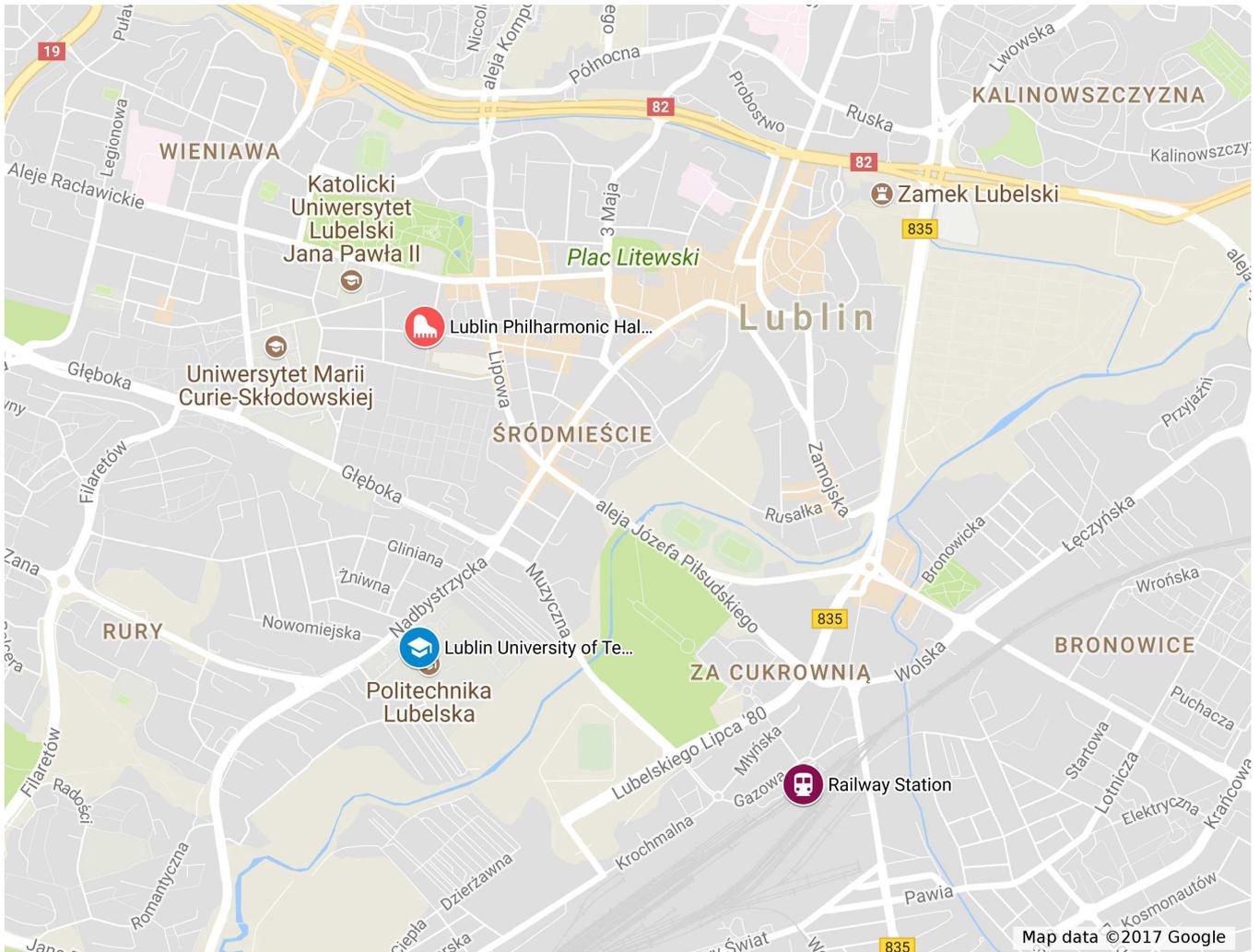
## TECHNICAL INFORMATION FOR SPEAKERS

The organizers kindly ask you to bring your presentations on USB memory stick. Your presentation must be uploaded to the computer in the lecture room with the help of the assisting staff responsible for the dedicated room. The presentation uploading deadline is the last coffee break prior to your presentation. Please note that double slide projection and personal laptops cannot be used.

## EMERGENCY CONTACT

**Jarosław Bęc** (CMM2017 Secretary), Phone: +48 500 070 838

# LUBLIN-CITY MAP



**Conference venue:** Lublin University of Technology, Faculty of Civil Engineering and Architecture (WBIA building), 40 Nadbystrzycka St.

**Gala dinner venue:** Lublin Philharmonic Hall, 5 M. Curie-Skłodowskiej St.

# LUBLIN UNIVERSITY OF TECHNOLOGY

## CAMPUS VIEW



# LECTURE ROOMS, WBIA BUILDING

