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32 International Conference Vibrations in Physical and Technical Systems

Monday, September, 28

10.00-12.00	**Registration**	
12.00-13.00	**Lunch**	
13.00-13.30	**Opening ceremony**	
13.30-15.15	**Chairman: MICHAŁ GUMINIAK**	
13.30-14.15	**Plenary lecture** Antonina Pirotta	New advances in passive structural vibration control
14.15-14.30	Jan Freundlich	Steady-state nonlinear vibrations of a cantilever beam with an eccentric mass at the end and fractional damping
14.30-14.45	Przemysław Kalitowski Arkadiusz Jenta Agnieszka Tomaszewska Beata Zima Michał Wójcik	Modal parameters of a wind turbine blade under variable temperature conditions: identification from full-scale laboratory tests
14.45-15.00	Adam Wijata Jan Awrejcewicz Krzysztof Witkowski	Vibrations and chaotic motion induced by anisotropic friction in the horizontal pendulum on a rotating disk system
15.00-15.15	Andrzej Urbaś Jacek Stadnicki	Influence of beam flexibility modeling methods on the simulation of impact-induced vibrations
15.15-16.00	**Coffee break + poster session**	
Poster 1	Dawid Cekus Marcin Dudek Zbigniew Pozorski Jolanta Pozorska	Vibration analysis of a container for transporting sensitive cargo
Poster 2	Monika Chuda-Kowalska	Influence of local modifications of metal face sheets on the mechanical and dynamic properties of multifunctional sandwich panels
Poster 3	Sebastian Garus Wojciech Sochacki	The influence of the number of structure elements in a quasi one–dimensional phononic crystal on the transmission

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Poster 4	Anna Jurczyńska Janusz Szmidla	Stability and free vibrations of geometrically nonlinear column under specific load in aspect of internal crack occurence
Poster 5	Janusz Szmidla Anna Jurczyńska	Damped vibrations of a Γ-type frame at selected types of conservative loading

16.00-17.00 **Chairman: AGNIESZKA TOMASZEWSKA – remote session**

16.00-16.15	Grzegorz Ilewicz	Integrated forward and inverse kinematic and dynamic modeling of a surgical robot manipulator for soft tissue operations
16.15-16.30	Grzegorz Ilewicz	Towards realistic dynamic modeling of surgical robots: an RCM mechanism based on experimental data from cardiovascular tissues
16.30-16.45	Krzysztof Kosała	Acoustic efficiency of enclosures with transparent walls
16.45-17.00	Kamil Łapiński Wojciech Łapka	Influence of cross-sectional geometry on the low-frequency vibration isolation function of 3D printed PET-G architected structures*

17.00-19.30 **Sandwich dinner**

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Tuesday, September, 29

7.30-9.00	**Breakfast**	
9.00-10.15	**Chairman: PIOTR FEDELIŃSKI**	
9.00-9.45	**Plenary lecture** Przemysław Litewka Roman Lewandowski	Dynamics of plates with viscoelastic layers described by extended fractional material models
9.45-10.00	Maksymilian Bednarek Bipin Balaram Donat Lewandowski Jan Awrejcewicz	Mathematical model of an axial magnetic spring and the influence of its parameters on stiffness characteristics*
10.00-10.15	Sebastian Krakowiak Radosław Nowak	Post-critical phenomena in mechanical systems with follower loads*
10.15-10.45	**Coffee break**	
10.45-12.00	**Chairman: PRZEMYSŁAW LITEWKA**	
10.45-11.00	Desta Kalbessa Kumsa Paweł Martynowicz	Numerical investigation of a magnetorheological tuned vibration absorber for an IEA 15-MW monopile-supported offshore wind turbine*
11.00-11.15	Piotr Łabuński	The influence of the type of damping material, operating temperature and damping element geometry on the effectiveness of passive vibration isolation*
11.15-11.30	Cezary Pałczyński Paweł Olejnik	Experimental investigation of vibroacoustic response in a sliding system with frictional contact*
11.30-11.45	Marcin Zieliński Magdalena Łasecka-Plura	Determination of dynamic characteristics of frames with Kelvin dampers and uncertain parameters using interval analysis*
11.45-12.00	Jakub Porysek Magdalena Łasecka-Plura	Surrogate-based modal sensitivity analysis of a frame with a fractional Kelvin damper*
12.00-12.30	**Coffee break**	

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12.30-13.45	**Chairman: JAN AWREJCEWICZ**	
12.30-13.15	**Plenary lecture** Piotr Fedeliński	Boundary element method in dynamics of deformable solids
13.15-13.30	Dariusz Grzelczyk Mateusz Wojna Ewelina Ogińska Jan Awrejcewicz Grzegorz Wasilewski Nimra Saeed	Dynamics of nonlinear oscillators coupled by magnetic fields*
13.30-13.45	Krystian Polczyński Jan Awrejcewicz	Magnetic pendulum under external excitation with state-dependent phase control*
13.45-14.45	**Photo + Lunch**	
14.45-16.30	**Chairman: MAGDALENA ŁASECKA-PLURA**	
14.45-15.00	Muhammad Junaid-U-Rehman Grzegorz Kudra Krystian Polczyński Kevin Dekemele Jan Awrejcewicz	Nonlinear dynamics of a parametrically excited 2DOF oscillator with magnetic restoring force and dry friction*
15.00-15.15	Mohammad Parsa Rezaei Grzegorz Kudra Krzysztof Witkowski Jan Awrejcewicz	Harmonic excitation of a nonlinear Hencky beam with a tip-mounted STF damper
15.15-15.30	Andrzej Rysak	EBI - indicator of the solution quality of a mechanical dynamic system
15.30-15.45	Przemysław Kalitowski Beata Zima Arkadiusz Jenta Marcin Krajewski Agnieszka Tomaszewska Michał Wójcik	Stiffness of a wind turbine blade under variable temperature conditions: experimental investigation at material and structural scales
15.45-16.00	Nicolas Leiva Maria Cristina Spizzuoco Agnieszka Tomaszewska Daniele Losanno	Structural dynamic identification using a stochastic method over a grandstand structure

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	Giorgio Serino Przemysław Kalitowski	
16.00-16.15	Radosław Nowak Sebastian Krakowiak	Double-beam piezoelectric non-linear energy harvester simulations
16.15-16.30	Martyna Sedlmayr Andrzej Rysak	Distribution of energy dissipation along a coupled oscillator chain

18.30-21.00 **Gala dinner**

* YOUNG RESEARCHERS COMPETITION

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32 International Conference Vibrations in Physical and Technical Systems

Wednesday, September, 30

7.30-9.00 **Breakfast**

9.00-10.30 **Chairman: ANNA KNITTER-PIĄTKOWSKA**

9.00-9.45	**Plenary lecture** Jarosław Latalski	Nolinear dynamics of active beam-like structures
9.45-10.00	Karol Rejowski Agnieszka Tomaszewska Beata Zima Michał Wójcik	Numerical study of the feasibility of detecting local delamination in a wind turbine blade based on mode shapes
10.00-10.15	Roman Starosta Grażyna Sypniewska-Kamińska Jan Awrejcewicz	Attenuation of longitudinal elastic waves in a rod by an autoparametric pendulum absorber – a multiple-scales analysis
10.15-10.30	Aleksandra Rachwalska-Skut Grzegorz Cieplok	Implementation of user-defined ODE models in LIGGGHTS using the fix framework for DEM simulation of a dual-chamber anti-resonant vibratory mill with particle fragmentation

10.30-11.00 **Coffee break**

11.00-12.15 **Chairman: ROMAN STAROSTA**

11.00-11.15	Stanisław Strzelecki	Stiffness, damping and inertia forces coefficients of the oil film of tilting 5-pad journal bearings
11.15-11.30	Civan Yavas Zdzisław Pawlak	Influence of prony series model order on the frequency dependent response of viscoelastic dampers
11.30-11.45	Patrycja Reder Wojciech Siekierski Krzysztof Ziopaja	Study of the new footbridges at the Adam Mickiewicz Museum in Śmiełów in terms of dynamic response
11.45-12.00	Tomasz Walczak Michał Guminiak Marcin Kamiński	Stochastic gait analysis with use kinetic parameters

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12.00-12.15	Anna Knitter-Piątkowska	From equations to intuition: active learning strategies in teaching mechanics and strength of materials for civil engineering students

12.15-12.45 **Closing ceremony**

12.45-13.45 **Lunch**

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