



ENGINEERING MECHANICS 2025

31st INTERNATIONAL CONFERENCE
MAY 12–14, 2025, MEDLOV, CZ

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The EM2025 Conference is hosted by the hotel Medlov.

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Czech Republic

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HONORARY COMMITTEE

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Institute of Thermomechanics, CAS, Ostrava, CZ

Igor Zolotarev, PhD.

Institute of Thermomechanics, CAS, CZ

1. GENERAL INFORMATION

ACCOMMODATION

Accommodation has been reserved at Hotel Medlov. Kindly contact the hotel reception upon your arrival for check-in and further assistance.

BADGES

Participants are kindly requested to wear their conference badges at all times. Badges are required for access to scientific sessions, meals, transportation, and other conference services.

BOARDING

Boarding is provided for participants in the hotel restaurant, beginning with dinner on Monday and concluding with lunch on Wednesday. Breakfast is served from 7:30, while lunches and dinners follow the schedule outlined in the conference programme. The cost of all meals is included in the conference fee. A visible conference badge is required as identification for the staff to serve you.

CONFERENCE REGISTRATION

The Registration Corner of the EM2025 Conference is located in the lobby of Hotel Medlov. It is open from 15:00 to 20:00 on Monday, 12th May 2025, from 8:30 to 13:00 on Tuesday, and from 8:30 to 12:00 on Wednesday. Accommodation is managed by the hotel reception. For any inquiries regarding hotel services, please contact the reception directly.

INSURANCE

The Conference Committee is not responsible for participants' health issues or losses. Visitors from abroad are advised to obtain insurance in their home country prior to travel.

INTERNET SERVICES

Wi-Fi and internet services will be available in the hotel for the duration of the conference.

REFRESHMENT

Coffee, mineral water, and other refreshments will be available during the coffee breaks for all participants. Outside of these breaks, snacks can be purchased at the hotel bar (10:00–22:00). For other options, please contact the hotel staff.

TRANSPORTATION

Transportation from Žďár nad Sázavou to Medlov and back (travel time 30 min.):

- The special bus to Medlov departs from the railway station in Žďár nad Sázavou on Monday, 12th May at **14:45**. This schedule aligns with the train arriving from Prague (departure 12:08, arrival 14:31) and from Brno (departure 12:20, arrival 13:25)
- The special bus from Medlov to Žďár nad Sázavou departs from the hotel Medlov on Wednesday at approximately **13:30**. The departure time will be specified during the conference. Connecting trains are available at 14:33 (Brno) and 15:27 (Prague).
- Connections to Žďár nad Sázavou on Monday, May 12, 2025:

Praha hl.n.	10:08	→ Žďár n.Sázavou	12:31	Train R 979 Vysočina
Praha hl.n	12:08	→ Žďár n.Sázavou	14:31	Train R 981 Vysočina
Brno hl.n.	12:20	→ Žďár n.Sázavou	13:25	Train R 982 Vysočina

- Connections from Žďár nad Sázavou on Wednesday, May 14, 2025

Žďár n.Sázavou	13:27	→ Praha hl.n.	15:55	Train R 982 Vysočina
Žďár n.Sázavou	14:33	→ Brno hl.n.	15:53	Train R 981 Vysočina
Žďár n.Sázavou	15:27	→ Praha hl.n.	17:55	Train R 980 Vysočina

A public bus service is also available from three stops located approximately 2 km away; for the detailed schedule, please contact the Registration Corner.

2. SCIENTIFIC INFORMATION

The *ENGINEERING MECHANICS 2025 – 31st International Conference* continues the tradition of successful and fruitful meetings held for many years in Svratka.

The Programme Committee has selected 56 contributions for presentation—41 lectures and 16 posters—including three invited keynote lectures. All accepted papers are published in the conference proceedings *Engineering Mechanics 2025*, printed by GLOS s.r.o., Semily (ISBN: 978-80-86246-96-3). The proceedings will also be available online at www.engmech.cz (e-ISBN: 978-80-86246-99-4, e-ISSN: 1805-8248).

OFFICIAL LANGUAGE

The official languages of the conference are Czech, Slovak, and English. No simultaneous translation is provided. Speakers are kindly requested to present in English whenever there is anyone in the audience who does not understand Czech or Slovak.

LECTURES

The conference includes keynote lectures held in plenary sessions, as well as parallel sessions taking place in various facilities within Hotel Medlov. Plenary sessions will be held in the main lecture room, referred to as *Lecture Hall I* (known as the *Conference Hall* in the hotel). Parallel sessions will be conducted in *Lecture Hall I*, *Lecture Hall II* (called the *Library* in the hotel), and, on Tuesday only, in *Lecture Hall III* (known as the *Office* in the hotel).

Each keynote lecture is scheduled for 60 minutes, while standard lectures are allocated 20 minutes including discussion. Chairmen of scientific sessions are responsible for maintaining the timetable. Presenting authors are kindly asked to meet with their Section Chairman at least 10 minutes before the session begins to ensure the functionality of their presentation.

A data projector with PC is available in all lecture halls. No additional equipment will be provided unless the speaker brings their own device—in which case, please contact the Conference Secretariat in advance. A technician will be present in each lecture hall throughout the conference.

POSTER SESSION

The poster exhibition area is located in the hotel lobby and will be accessible from Tuesday morning. Each poster has been assigned a panel approximately 0.9×1.2 m in size (suitable for A0 format), clearly labelled with its number and title. Fixing materials will be provided on-site and at the Registration Desk. Authors are kindly asked to leave their posters on display until the end of the conference to ensure continued visibility and engagement.

Poster authors may register their contribution for the Poster Competition for the *Prize of the Managing Director of ŽDAS* at the Registration Corner. Posters entered into the competition will be marked with a red sticker. Two prizes will be awarded—one in each of the following age categories of the presenting author: under 30 years, and 30 years and above. **By entering the competition, authors confirm their availability to attend the Award Ceremony in person, as personal presence is a requirement for receiving the prize.**

Interactive poster sessions will take place during coffee breaks, offering informal opportunities for discussion with authors. The main event will be an extended coffee break on Tuesday morning, designated as the primary interactive poster session. Additionally, a special interactive poster session will be held on Tuesday at 13:30, when the poster jury—chaired by Mr. Radek Vlček, MSc., Technical Director of the ŽDAS company—will review the displays for official evaluation. Authors are strongly encouraged to be present during this time and throughout all interactive sessions to allow the committee to engage directly with them.

Winners of the competition will be announced and awarded on Tuesday evening at 19:00, just before the Conference Dinner. Authors are kindly requested to remove their posters by Wednesday noon.

VARIATIONS

The Scientific Committee reserves the right to modify the programme for scientific or technical reasons. In case a speaker is absent at the scheduled time, subsequent speakers may be advanced, and the following break extended accordingly.

TECHNICAL EXHIBITIONS

Experimental equipment, instruments, hardware, and software related to engineering mechanics may be exhibited in the hotel lobby, depending on availability and interest.

LIST OF SECTIONS

Section	Abbreviation	Lecture Hall
Keynote Lectures	<i>KEY</i>	Lecture Hall I (Conference Hall)
Biomechanics	<i>BIO</i>	
Dynamics	<i>DYN</i>	
Mechatronics	<i>MCT</i>	
Mechanics of Solids	<i>SOL</i>	Lecture Hall II
Fracture Mechanics	<i>FRA</i>	
Reliability of Structures	<i>REL</i>	
Fluid Mechanics	<i>FLU</i>	Lecture Hall III
Technological Processes	<i>TEC</i>	
Thermomechanics	<i>TER</i>	

3. CONFERENCE TIMETABLE

Monday, May 12, 2025				
	Conference Hall			Hotel lobby
	Lecture Hall I	Lecture Hall II	Lecture Hall III	
16:00 – 16:20	Opening of the conference			Registration 15:00–19:00
16:20 – 17:20	Keynote lecture 1			
17:20 – 18:20	Keynote lecture 2			
18:30 – 20:00	dinner			
20:00 – 21:30	Workshop	(CSW)		
Tuesday, May 13, 2025				
9:00 – 10:20 9:00 – 10:40	BIO/DYN 1	SOL 1	TEC/TER	Registration 8:30–13:00 Poster Session 8:00–19:00
10:20 – 11:10	coffee break & interactive poster session			
11:10 – 12:30	DYN 2	SOL2	FLU	
12:30 – 14:00	lunch			
13:30 – 14:00	Interactive Poster Session & Jury Evaluation			
afternoon	Free time			
19:00	Poster Contest winner announcement			
19:00 – ??	Conference banquet			
Wednesday, May 14, 2025				
9:00 – 10:00	Keynote lecture 3			Registration 8:30–12:00
10:00 – 10:30	coffee break & interactive poster session			
10:30 – 12:30	MCT/DYN 3	FRA/REL		Poster Session 8:00–12:00
12:30	Closing of the conference (restaurant)			
12:30	lunch			

4. PROGRAMME OF THE PRESENTATIONS

4.1. Plenary Lectures

Keynote Lectures (KEY)

Computational Software (CSW)

Monday – May 12, 2025– Plenary sessions

16:00–16:20 *Opening Ceremony* (Conference Hall)

16:20–18:30 *Keynote lectures – Plenary session* (Conference Hall)
chairman: Jiří Náprstek

Mon 16:20	Janata V., et al. <i>Pre-Stressed Steel Structures, Design and Construction</i>	(KEY)
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Mon 17:20	Fíla T., et al. <i>Innovative Methodologies in Impact Dynamics: Advancing Intermediate and High Strain Rate Testing with High-Speed X-Ray Imaging</i>	(KEY)
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20:00 **Computational Software (CSW)** (Conference Hall)
chairman: Cyril Fischer

Mon 20:00–21:00	Kožíšek M. <i>Neural Networks in COMSOL Multiphysics</i>	(Guest lecture)
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Wednesday – May 14, 2025– Plenary sessions

9:00–10:00 *Keynote lectures – Plenary session* (Conference Hall)
chairman: Jindřich Petruška

Wed 9:00	Minarčík J. <i>Applications of Geometric Flows</i>	(KEY)
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4.2. Lecture Hall I (Conference Hall)

Biomechanics – Dynamics - Mechatronics

Tuesday – May 13, 2025– Lecture Hall I

9:00–10:00 **Biomechanics (BIO)**
chairman: Jan Bayer

Tue 9:00	Radolf V., Košina J., Horáček J. (#24) <i>Experimental Modelling of the Influence of Vocal Folds Stiffness on Acoustic Response Spectra of the Human Vocal Tract</i>
Tue 9:20	Štorkán J., Vampola T. (#44) <i>Influence of Steady Flow on the Position of Resonant Frequencies of Human Voice</i>
Tue 9:40	Zanganeh B., Maršálek P., Handlos P., Timkovič J., Štembírek J., Cienciala J. (#47) <i>Modal Analysis of Cranium via Experimental and Numerical Approaches</i>

10:00–10:20 **Dynamics (Dyn)**
chairman: Jan Bayer

Tue 10:00	Sokol M., Mazáčková K., Venglár M., Crespo-Sanchez S. (#53) <i>Digital Twin of Industrial Building for Tuned Mass Damper Appropriate Design</i>
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10:20 – 11:10 *Coffee Break / Interactive Poster Session – hotel lobby*

11:10–12:30 **Dynamics (Dyn)**
chairman: Milan Sokol

Tue 11:10	Čečrdle J., Malínek P., Vích O. (#06) <i>Experimental Investigation Into Whirl Flutter Using W-Wing Aeroelastic Demonstrator in 2024</i>
Tue 11:30	Isoz M., et al. (#32) <i>On Model Order Reduction in Simulations of Laser Shock Peening</i>
Tue 11:50	Liss M., Kałaczyński T., Łukasiewicz M. (#11) <i>Noise Characteristics of the Inogen One G2 Oxygen Concentrator in Different Operating Modes</i>
Tue 12:10	Bayer J., Urushadze S. (#16) <i>Results of a Comparative Damage Detection Case Study</i>

12:30 *Lunch - Restaurant*

Wednesday – May 14, 2025– Lecture Hall I

9:00 – 10:00 **Keynote lecture (plenary session)**

10:00 – 10:30 *Coffee Break / Interactive Poster Session – hotel lobby*

10:30–11:30 **Mechatronics (MCT)**
chairman: Jiří Náprstek

Wed 10:30	Krejsa J., Věchet S. (#49) <i>Robotic Sewer Pipe Mapping Concept – Simplified 2D Case Preliminary Study</i>
Wed 10:50	Shehadeh M. A. (#54) <i>Simulation-In-The-Loop Optimization of Obstacle-Aided Locomotion in Snake-Like Robots</i>
Wed 11:10	Čech V. (#27) <i>PID Controller Fast Tuning Method</i>

11:30–12:30 **Dynamics (DYN)**
chairman: Stanislav Věchet

Wed 11:30	Lu Q., Novák D. (#13) <i>Stochastic Sensitivity Analysis of Nonlinear Crack Detection Using Quadratic Teager-Kaiser Energy</i>
Wed 11:50	Náprstek J., Fischer C. (#59) <i>Numerical Simulation of Transient Aeroelastic Phenomena Influenced by Stochastic Resonance in Cross Flow Conditions</i>
Wed 12:10	Fischer C., Náprstek J. (#58) <i>FEM-Based Modeling of Generalized Amplitudes in Stochastic van der Pol System</i>

12:30 **Lunch - Restaurant**

4.3. Lecture Hall II

Mechanics of Solids - Fracture Mechanics - Reliability of Structures

Tuesday – May 13, 2025– Lecture Hall II

9:00–10:20 **Mechanics of Solids (SOL)**
chairman: Jiří Němeček

Tue 9:00	Studeník O., Kotouč Šourek M., Kočí P., Isoz M. (#46) (online) <i>On DEM Contact Model for Non-Spherical Solids but Consistent With Hertz Model for Spheres</i>
Tue 9:20	Cimrman R. (#31) <i>Implementation of Block Preconditioners for Piezoelectricity in SfePy</i>
Tue 9:40	Hálková B., Schmidt J., Šejnoha M. (#52) <i>Numerical Approach to Describe Fractional Viscoelasticity</i>
Tue 10:00	Sudhakar A., Čepica D., Trefil A. (#45) <i>Comparison of Analytical and Experimental Approaches for Modified von Mises Truss Behaviour</i>

10:20 – 11:10 Coffee Break / Interactive Poster Session – hotel lobby

11:10–12:30 **Mechanics of Solids (SOL)**
chairman: Robert Cimrman

Tue 11:10	Němeček J., Němečková J., Němeček J. (#40) <i>Viscoelasticity of PMMA Studied by Nanoindentation</i>
Tue 11:30	Kylar J., Dvořák R., Kolman R., Kober J. (#34) <i>Experimental Study of Elastic Wave Propagation in Metallic Multimaterial Specimens Made by Additive Manufacturing</i>
Tue 11:50	Ślömion M., Koczorowski W., Mazurkiewicz A., Wawroń W. (#60) <i>Surface Morphology of Orthodontic Bracket Slots and Its Clinical Significance: A Review of SEM and EDS Results</i>
Tue 12:10	Adamec T., Kondepoti S. K., Petruška J., Šebek F. (#41) <i>Prediction of Uniaxial and Biaxial Ratcheting by the Chaboche Model With Evolution for 304 Stainless Steel</i>

12:30 Lunch - Restaurant

Wednesday – May 14, 2025– Lecture Hall II

9:00 –10:00 **Keynote lecture (plenary session)**

10:00 – 10:30 *Coffee Break / Interactive Poster Session – hotel lobby*

10:30–11:10 **Fracture Mechanics (FRA)**
Session Chairs: *Kamila Cábová & Luboš Náhlík*

Wed 10:30	Pavlas J., Kovářík O., Slavík S., Růžička M. (#51) <i>Progressive Fatigue Testing Methods of Aircraft Turbine Engine Blade Materials</i>
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Wed 10:50	Raisinger J., Novák L., Eliáš J. (#29) <i>Data-Driven Prediction of Stress Response for Inelastic Discrete RVE</i>
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11:10–12:30 **Reliability of Structures (REL)**
Session Chairs: *Kamila Cábová & Luboš Náhlík*

Wed 11:10	Náhlík L., et al. (#62) <i>Role of air humidity in residual fatigue lifetime of railway axle</i>
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Wed 11:30	Cábová K., et al. (#33) <i>Induction Heating System for Tensile Coupon Tests</i>
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Wed 11:50	Rušarová S., Šejna J., Cábová K. (#56) <i>Charring Rate of Wood and Development of Cracks in the Charred Layer</i>
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Wed 12:10	Bartůšek P., Jandera M., Cábová K., Feber N. (#43) <i>Test of Eccentrically Connected Gusset Plates in Compression</i>
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12:30 *Lunch - Restaurant*

4.4. Lecture Hall III

Technological Processes – Thermomechanics - Fluid Mechanics

Tuesday – May 13, 2025– Lecture Hall III

9:00–9:20 **Thermomechanics (TER)**
chairman: Michael Macháček

Tue 9:00	Sláma P., Prokop P., Jančík P. (#35) <i>Heat Accumulator, Using PCM Materials, in a Smaller Central Heating System</i>
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9:20–10:40 **Technological Processes (TEC)**
chairmen: Michael Macháček

Tue 9:20	Polach P., Bělohoubek M., Lazar J. (#18) <i>Mobile Hydrogen Refueling Station and Calculation Support for Determining Optimal Refueling Parameters</i>
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Tue 9:40	Sann S., Tomeh E. (#07) <i>Bearing Fault Detection of Automotive Gearbox Using Order Analysis</i>
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Tue 10:00	Menshikh M., Bartuli E., Kalivoda J., Kučerík J. (#38) <i>Design of Hollow Fiber Membrane Module for Membrane Distillation</i>
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Tue 10:20	Hlaváček P., Wolf C., Robens-Radermacher A., Kühne H.-C. (#63) <i>Mechanical Properties of Powder-Bed 3D Printed Concrete for Lightweight Construction Elements</i>
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10:40 – 11:10 *Coffee Break / Interactive Poster Session – hotel lobby*

11:10–12:30 **Fluid Mechanics (FLU)**
chairman: Pavel Polach

Tue 11:10	Kolář D. (#23) <i>Comparison of the Efficiency of Selected Hydraulic Sources</i>
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Tue 11:30	Ledvinková B., Hračov S., Macháček M. (#48) <i>Influence of Blockage Effect and of Turbulence Intensity on the Flow Around U-Profile</i>
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Tue 11:50	Macháček M., Hračov S., Dejmal K. (#61) <i>Aerodynamic Coefficients and Pressure Distribution on U-Beams With Porous Flanges</i>
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Tue 12:10	Michálek P., Hračov S., Macháček M. (#57) <i>Application of Blockage Corrections to U-Beams With Porous Railings</i>
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12:30 *Lunch - Restaurant*

4.5. Poster session

Note: All of the posters exhibited at the Conference can be registered into the competition for the **Prize of the Managing Director of the ŽŽAS Company**. The special committee – under chairmanship of **Mr. Radek Vlček, MSc.**, technical director of the ŽŽAS company – will conclude the assessment of the posters exhibited on **Tuesday at 13:30**.

13 – May 14, 2025– Poster session

Poster exhibition: Tuesday 8:00 – Wednesday 12:00
chairmen: Michael Formánek & Cyril Fischer

P01 DYN	Aleksandrowicz P., Droździel P. (#36) <i>Selected Problems of Modelling of Vehicle Collision with a Pole</i>
P02 DYN	Benčat J., Lukáč M. (#37) <i>Hydrotechnical Structures Dynamic Response Due to Turbulent Water Waves</i>
P03 DYN	Pařez J., Kovář P., Valášek M. (#08) <i>Hybrid Propulsion System Performance Modeling for Regional Turboprop Aircraft</i>
P04 DYN	Zbončák R. (#10) <i>Modal Analysis of Hybrid 'Steel-Composite' Disc of the Indexing Gearbox Turret Follower</i>
P05 FLU	Ciganas J., Cigane U. (#25) <i>Finite Element Analysis of a Modular Piezoelectric Micropump Design</i>
P06 FLU	Duda D., Yanovych V., Klimko M., Mrázová A., Uruba V., Tomášková T. (#20) <i>Experimental Exploration of Quasi-2D Turbulence Clamped by Boundary Layers</i>
P07 FLU	Kubíčková L., Studeník O., Plachá M., Forinová M., Isoz M. (#30) <i>Effects of Obstacles on QCM Biosensor Efficiency: A Parametric Study</i>
P08 MCT	Věchet S., Krejsa J., Chen K. S. (#03) <i>Stable Walking for Bipedal Robots Using PPO</i>
P09 REL	Mucha W., Kuš W., Jiregna I.T. (#15) <i>Numerical Optimization of Strain Sensor Placement for Load Monitoring in 2D Structures</i>
P10 SOL	Ondrášek J., Bílkovský A. (#39) <i>Influence of Conjugate Cam Pair Reliefs on Indexing Gearbox Operation</i>
P11 TER	Chudý D., Jegla Z. (#28) <i>Computer-Aided Analysis of Innovative Thermal Enhancement Elements for Industrial Boilers</i>

P12 TER	Daxner J., Babička Fialová D., Zabloudil J., Jegla Z., Strapina J. (#21) <i>Industrial Validation of Developed Equipment for Identifying the Fouling Capabilities of Gaseous Waste Heat-Usable Process Streams</i>
P13 TER	Korczak A. (#17) <i>Application of the Finite Pointset Method in Solving Dual-Phase Lag Equation</i>
P14 TER	Michálková A., Jegla Z., Krišpín J., Gross A., Reppich M. (#26) <i>Development of a System Approach for Adaptation of Current and Design of New Combustion Equipment for Low-Carbon and Sustainable Energy</i>
P15 TER	Zabloudil J., Jegla Z. (#22) <i>Fly Ash Fouling Influence on Grate Combustion Chamber Thermal Calculation</i>
P16 TEC	Pavlenko M. V. (#09) <i>Features of Vibration Technology in the Preparation of a Low-Permeability Gas-Bearing Coal Seam for Its Safe Preparation</i>

5. LIST OF PAPERS

Notes:

- Alphabetic order according to the name of the first author
- Columns 1-3:
1st column: day and time of presentation line
2nd column: #paper number and section
3rd column: number of the lecture hall / number of the poster

Tue 12:10	#41 SOL	II	Adamec T., Kondepati S. K., Petruška J., Šebek F. <i>Prediction of Uniaxial and Biaxial Ratcheting by the Chaboche Model With Evolution for 304 Stainless Steel</i>
	#36 POS	P01	Aleksandrowicz P., Drożdziel P. <i>Selected Problems of Modelling of Vehicle Collision With a Pole</i>
Wed 12:10	#43 REL	II	Bartůšek P., Jandera M., Cábová K., Feber N. <i>Test of Eccentrically Connected Gusset Plates in Compression</i>
Tue 12:10	#16 DYN	I	Bayer J., Urushadze S. <i>Results of a Comparative Damage Detection Case Study</i>
	#37 POS	P02	Benčat J., Lukáč M. <i>Hydrotechnical Structures Dynamic Response Due to Turbulent Water Waves</i>
Wed 11:30	#33 REL	II	Cábová K., Šejna J., Mózer V., Wald F., Malendowski M., Szymkuć W., Jankowiak T. <i>Induction Heating System for Tensile Coupon Tests</i>
Wed 11:10	#27 MCT	I	Čech V. <i>PID Controller Fast Tuning Method</i>
Tue 11:10	#06 DYN	I	Čečrdle J., Malínek P., Vích O. <i>Experimental Investigation Into Whirl Flutter Using W-Wing Aeroelastic Demonstrator in 2024</i>
	#28 POS	P11	Chudý D., Jegla Z. <i>Computer-Aided Analysis of Innovative Thermal Enhancement Elements for Industrial Boilers</i>
	#25 POS	P05	Ciganas J., Cigane U. <i>Finite Element Analysis of a Modular Piezoelectric Micropump Design</i>
Tue 9:20	#31 SOL	II	Cimrman R. <i>Implementation of Block Preconditioners for Piezoelasticity in SfePy</i>
	#21 POS	P12	Daxner J., Babička Fialová D., Zabloudil J., Jegla Z., Strapina J. <i>Industrial Validation of Developed Equipment for Identifying the Fouling Capabilities of Gaseous Waste Heat-Usable Process Streams</i>
	#20 POS	P06	Duda D., Yanovych V., Klimko M., Mrázová A., Uruba V., Tomášková T. <i>Experimental Exploration of Quasi-2D Turbulence Clamped by Boundary Layers</i>
Mon 17:20	#50 KEY	I	Fíla T., Falta J., Šleichrt J., Koudelka P., Krčmářová N., Kylar J., Drechslerová V. <i>Innovative Methodologies in Impact Dynamics: Advancing Intermediate and High Strain Rate Testing with High-Speed X-Ray Imaging</i>
Wed 12:10	#58 DYN	I	Fischer C., Náprstek J. <i>FEM-Based Modeling of Generalized Amplitudes in Stochastic Van Der Pol Systems</i>
Tue 9:40	#52 SOL	II	Hálková B., Schmidt J., Šejnoha M. <i>Numerical Approach to Describe Fractional Viscoelasticity</i>
Tue 10:20	#63 TEC	III	Hlaváček P., Wolf C., Robens-Radermacher A., Kühne H.-C. <i>Mechanical Properties of Powder-Bed 3D Printed Concrete for Lightweight Construction Elements</i>
Tue 11:30	#32 DYN	I	Isoz M., Kovárnová A., Gruber P., Kubíčková L., Gabriel D., Kaufman J., Brajer J. <i>On Model Order Reduction in Simulations of Laser Shock Peening</i>
Mon 16:20	#01 KEY	I	Janata V., Lahodný J., Gregor D., Jermoljev D., Lukeš M., Beran J. <i>Pre-Stressed Steel Structures, Design and Construction</i>

Tue	#23	III	Kolář D.
11:10	FLU		<i>Comparison of the Efficiency of Selected Hydraulic Sources</i>
	#17	P13	Korczak A.
	POS		<i>Application of the Finite Pointset Method in Solving Dual-Phase Lag Equation</i>
Mon	#64	I	Kožíšek M.
20:00	CSW		<i>Neural Networks in COMSOL Multiphysics</i>
Wed	#49	I	Krejsa J., Věchet S.
10:30	MCT		<i>Robotic Sewer Pipe Mapping Concept – Simplified 2D Case Preliminary Study</i>
	#30	P07	Kubíčková L., Studeník O., Plachá M., Forinová M., Isoz M.
	POS		<i>Effects of Obstacles on QCM Biosensor Efficiency: A Parametric Study</i>
Tue	#34	II	Kylar J., Dvořák R., Kolman R., Kober J.
11:30	SOL		<i>Experimental Study of Elastic Wave Propagation in Metallic Multimaterial Specimens Made by Additive Manufacturing</i>
Tue	#48	III	Ledvinková B., Hračov S., Macháček M.
11:30	FLU		<i>Influence of Blockage Effect and of Turbulence Intensity on the Flow Around U-Profile</i>
Tue	#11	I	Liss M., Kałaczyński T., Łukasiewicz M.
11:50	DYN		<i>Noise Characteristics of the Inogen One G2 Oxygen Concentrator in Different Operating Modes</i>
Wed	#13	I	Lu Q., Novák D.
11:30	DYN		<i>Stochastic Sensitivity Analysis of Nonlinear Crack Detection Using Quadratic Teager-Kaiser Energy</i>
Tue	#61	III	Macháček M., Hračov S., Dejmal K.
11:50	FLU		<i>Aerodynamic Coefficients and Pressure Distribution on U-Beams With Porous Flanges</i>
Tue	#38	III	Menshikh M., Bartuli E., Kalivoda J., Kučerík J.
10:00	TEC		<i>Design of Hollow Fiber Membrane Module for Membrane Distillation</i>
Tue	#57	III	Michálek P., Hračov S., Macháček M.
12:10	FLU		<i>Application of Blockage Corrections to U-Beams With Porous Railings</i>
	#26	P14	Michálková A., Jegla Z., Křišpín J., Gross A., Reppich M.
	POS		<i>Development of a System Approach for Adaptation of Current and Design of New Combustion Equipment for Low-Carbon and Sustainable Energy</i>
Wed	#42	I	Minarčík J.
9:00	KEY		<i>Applications of Geometric Flows</i>
	#15	P09	Mucha W., Kuś W., Jiregna I.T.
	POS		<i>Numerical Optimization of Strain Sensor Placement for Load Monitoring in 2D Structures</i>
Wed	#62	II	Náhlík L., Pokorný P., Vojtek T., Dlhý P., Fajkoš R., Peter O., Hutař P.
11:10	REL		<i>Role of Air Humidity in Residual Fatigue Lifetime of Railway Axle</i>
Wed	#59	I	Náprstek J., Fischer C.
11:50	DYN		<i>Numerical Simulation of Transient Aeroelastic Phenomena Influenced by Stochastic Resonance in Cross Flow Conditions</i>
Tue	#40	II	Němeček J., Němečková J., Němeček J.
11:10	SOL		<i>Viscoelasticity of PMMA Studied by Nanoindentation</i>
	#39	P10	Ondrášek J., Bílkovský A.
	POS		<i>Influence of Conjugate Cam Pair Reliefs on Indexing Gearbox Operation</i>
	#08	P03	Pařez J., Kovář P., Valášek M.
	POS		<i>Hybrid Propulsion System Performance Modeling for Regional Turboprop Aircraft</i>
Wed	#51	II	Pavlas J., Kovářík O., Slavík S., Růžička M.
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	#09	P16	Pavlenko M. V.
	POS		<i>Features of Vibration Technology in the Preparation of a Low-Permeability Gas-Bearing Coal Seam for Its Safe Preparation</i>
Tue	#18	III	Polach P., Bělohoubek M., Lazar J.
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Tue	#24	I	Radolf V., Košina J., Horáček J.
9:00	BIO		<i>Experimental Modelling of the Influence of Vocal Folds Stiffness on Acoustic Response Spectra of the Human Vocal Tract</i>

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Wed	#56	II	Rušarová S., Šejna J., Cáblová K.
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Tue	#07	III	Sann S., Tomeh E.
9:40	TEC		<i>Bearing Fault Detection of Automotive Gearbox Using Order Analysis</i>
Wed	#54	I	Shehadeh M. A.
10:50	MCT		<i>Simulation-In-The-Loop Optimization of Obstacle-Aided Locomotion in Snake-Like Robots</i>
Tue	#35	III	Sláma P., Prokop P., Jančík P.
9:00	TER		<i>Heat Accumulator, Using PCM Materials, in a Smaller Central Heating System</i>
Tue	#60	II	Ślomion M., Koczorowski W., Mazurkiewicz A., Wawroń W.
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10:00	SOL		<i>Comparison of Analytical and Experimental Approaches for Modified Von Mises Truss Behaviour</i>
	#03	P08	Věchet S., Krejsa J., Chen K. S.
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	#22	P15	Zabloudil J., Jegla Z.
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