

CONFERENCE PROGRAM

WEDNESDAY April, 17	Welcome Cocktail Registration 17:00 - 19:00		
THURSDAY - April, 18	FRIDAY - April, 19		
Registration 8:00-9:30			
PLENARY SESSION ROOM 2-1		Session 3-A <i>ROOM 2-2</i> 9:00-10:40	Session 3-B <i>ROOM 2-3</i> 9:00-10:40
Opening Ceremony 9:30 - 10:00		Friction & Wear 2	Bio-Tribology
KEYNOTE SPEAKERS 10:00-11:00	Coffee break 10:40-11:00		
Coffee break 11:00-11:15	Session 4-C <i>ROOM 2-1</i> 11:00-13:00	Session 4-A <i>ROOM 2-2</i> 11:00-13:00	Session 4-B <i>ROOM 2-3</i> 11:00-13:00
KEYNOTE SPEAKERS 11:15-12:15	Tribology in Machine Elements	Surface engineering & coatings	Lubrication 2
Sponsors Session 12:15-13:15	Lunch break 13:00 - 14:15		
Lunch break 13:15 - 14:30		Session 5-A <i>ROOM 2-2</i> 14:15-16:15	Session 5-B <i>ROOM 2-3</i> 14:15-16:15
Session 1-A <i>ROOM 2-2</i> 14:30-16:10	Session 1-B <i>ROOM 2-3</i> 14:30-16:10	Friction & Wear 3	Lubricants & Tribo- chemistry 2
Friction & Wear 1	Lubrication 1	Coffee break 16:15-16:30	
Coffee break 16:10-16:30		CONFERENCE CLOSURE	
Session 2-A <i>ROOM 2-2</i> 16:30-17:50	Session 2-B <i>ROOM 2-3</i> 16:30-17:50		
Contact Mechanics	Lubricants & Tribo- chemistry 1		
GALA DINNER 19:00-23:00			
SATURDAY April, 20	Conference Trip 7:45 - 19:00		

THURSDAY – April, 18

10:00-10:30	KEYNOTE SPEAKER Mircea D. PASCOVICI <i>Analytical models in Lubrication. A life experience</i>
10:30-11:00	KEYNOTE SPEAKER Dae-Eun KIM <i>Fundamental Understanding of Friction at the Sliding Interface</i>
11:00-11:15	Coffee break
11:15-11:45	KEYNOTE SPEAKER Mihai ARGHIR <i>The Role of Bulk Flow Model and CFD Analyzes in Today's Lubrication</i>
11:45-12:15	KEYNOTE SPEAKER Daniel NELIAS <i>Rolling Contact Fatigue of Dented Surfaces</i>
12:15-13:15	Platinum Sponsors Session <i>Anton Paar, Rtec-Instruments, Etansari Grafex, Mobil Industrial AG</i>
13:15-14:30	Lunch break
Session 1-A: <i>Friction & Wear 1</i> Room: 2.2	
Co-chairs: <i>Gabriela Cristina IONESCU Răzvan-George RÎPEANU</i>	
Hour	Title and authors
14:30-14:50	The challenge of studying tribological applications on the laboratory scale. <i>Emmanuel Georgiou, Angelos Koutsomichalis, Dirk Drees, Jean-Pierre Celis, Nikolaos Vaxevanidis</i>
14:50-15:10	Enhancing Insight into Tribological and Mechanical Properties: Integrating Mechanical Testing, 3D Profilometry, and Electrified Tribology Techniques. <i>Gregory Favaro, Philippe Kempe, Vishal Khosla (Rtec-instruments)</i>
15:10-15:30	Two-body and three-body friction and wear characteristics of dental composites in different mediums. <i>Kivanc Dulger, Gencaga Purcek</i>
15:30-15:50	Tribological behavior of 410L SS - SiCp composites reinforced with SiC particles functionalized by Ti-Ni coating layers. <i>Oscar Carvalho, Mihaela Buciumeanu, Abdulsalam Muhrat, Filipe Samuel Silva</i>
15:50-16:10	Friction and Wear Behaviour of Fine-Grained and Aged Al 2024 Alloy. <i>Gencaga Purcek, Harun Yanar, Muhammet Demirtas, Melih Ustalar, Uzun Muhammet</i>
Session 1-B: <i>Lubrication 1</i> Room: 2.3	
Co-chairs: <i>Jean BOUYER Michal WASILCZUK</i>	
Hour	Title and authors
14:30-14:50	Transient multiscale simulation of the lubricant flow between two rough surfaces. <i>Noel Brunetiere, Arthur Francisco</i>
14:50-15:10	Effect of lubricant properties on the performance of a hydrodynamic journal bearing based on theoretical results. <i>Michal Wodtke, Wojciech Litwin</i>
15:10-15:30	Analysis of multi-recess compliant hydrostatic thrust bearings with misaligned surfaces operating under rotating and non-rotating conditions. <i>Alice Marinescu, Aurelian Fatu, Traian Cicone</i>
15:30-15:50	Performance and resilience of a spring-supported thrust bearing of a hydropower unit. <i>Samuel Cupillard</i>
15:50-16:10	<i>Performance characteristics of a hydrostatic thrust bearing with poro-elastic restrictor.</i> <i>Alin Margineanu, Alice Marinescu, Aurelian Fatu, Traian Cicone</i>
16:10-16:30	Coffee break

Session 2-A: <i>Contact Mechanics</i>		Room: 2.2
Co-chairs: <i>Viorel PALEU Daniel NELIAS</i>		
<i>Hour</i>	<i>Title and authors</i>	
16:30-16:50	Friction at the grain-scale: the role of inter-particle friction in granular media and its effect on grain-and-macro-scale bed behaviour. <i>Jack Moss, Romeo Glovnea</i>	
16:50-17:10	Use of constructal law to proof the maximum work principle for both bulk plasticity and contact surface friction. Application to anisotropic tribological behaviour. <i>Adinel Gavrus</i>	
17:10-17:30	About local and volume deformation of rubber spheres. <i>Ilie Muscă, Elena Vărăreanu (Sîrghie, Marius Marchitan</i>	
17:30-17:50	Fractal modelling of the static friction coefficient in elliptic hertzian wheel-rail contact. <i>Laura Mariana Babici, Andrei Tudor, Jordi Romeu</i>	
Session 2-B: <i>Lubricants & Tribo-chemistry 1</i>		Room: 2.3
Co-chairs: <i>Mihaela BUCIUMEANU Gencaga PURCEK</i>		
<i>Hour</i>	<i>Title and authors</i>	
16:30-16:50	The impact of using lubricants for flanged joints. <i>Andreea Patrascu (Etansari GRAFEX S.A.)</i>	
16:50-17:10	The superior lubricity demonstrating nanoparticle and protic ionic liquid-based lubricity-improving additives for water-based lubricants. <i>Raimondas Kreivaitis, Arturas Kupcinskas, Jolanta Treinyte, Milda Gumbyte</i>	
17:10-17:30	Influence of graphite macroparticles on friction and wear of A356/SiC/Gr composites in boundary lubrication conditions. <i>Aleksandar Vencl</i>	
17:30-17:50	Experimental research on the corrosion resistance characteristics of A606 steel used in the manufacture of coiled tubing. <i>Gabriela Cristina Ionescu, Ion Nae, Octavian Narcis Ionescu, Răzvan-George Rîpeanu</i>	
17:50-19:00		
19:00-23:00	GALA DINNER	

FRIDAY – April, 19

Session 3-A: <i>Friction & Wear 2</i>		Room: 2.2
Co-chairs: <i>Romeo GLOVNEA Dae-Eun KIM</i>		
<i>Hour</i>	<i>Title and authors</i>	
9:00-9:20	Analysis of static and kinetic friction coefficient in the contact between glass and soft materia. <i>Bogdan Chiriac, Dumitru Olaru, Ana Tufescu</i>	
9:20-9:40	Comparative evaluation of tribological properties of brake pad materials. <i>George Bălăsoiu, Valentin Amorțilă, Doina Boazu, Mihaela Buciumeanu</i>	
9:40-10:00	Impact wear effect on sound absorbing panels. <i>Elena Adelina Chiriac, Marcelin Benchea, Carmen Bujoreanu</i>	
10:00-10:20	Clearance optimization for roller-shoe transmission mechanism from diesel high-pressure common rail pumps. <i>Constantin Răzvan Iordache, Carmen Bujoreanu, Dumitru Olaru</i>	
10:20-10:40	Experimental determination of the friction coefficient in the dry sliding friction regime with application to brake discs. <i>Ionuț Daniel Geonea, Ilie Dumitru, Laurențiu Răcilă, Gabriel Marinescu</i>	

Session 3-B: <i>Bio-Tribology</i>		Room: 2.3
Co-chairs: <i>Lorena DELEANU Nikolaos VAXEVANIDIS</i>		
<i>Hour</i>	<i>Title and authors</i>	
9:00-9:20	Comparative study of the scratching behaviour of the materials used for medical orthoses. <i>Marius Costin Poporogu, Georgiana - Ionela Păduraru, Andrei Călin, Petre - Lucian Seiciu, Marilena Stoica</i>	
9:20-9:40	Characterization of BioTribological Interfaces - Opportunities and Challenges. <i>Kartik Pondicherry, Paul Staudinger, Julius Heinrich (Anton Paar)</i>	
9:40-10:00	Nanotribological Characterization of Dental Restorative Materials. <i>Marius Pustan, Corina Bîrleanu, Mircea Cioază, Florin Pop</i>	
10:00-10:20	Stick-slip behaviour in a human knee. <i>Michal Ruzek, Andre Timofeyev, Samuel Saragoussi, Ana-Maria Trunfio-Sfarghiu</i>	
10:20-10:40	Insights into the Young's modulus of human finger skin: evaluating contact area and indentation creep behaviour. <i>Andrei Călin, Andrei Tudor, Miloš Knežev</i>	
10:40-11:00	Coffee break	
Session 4-A: <i>Surface engineering and coatings</i>		Room: 2.2
Co-chairs: <i>Raimondas KREIVAITIS Alexandru Valentin RADULESCU</i>		
<i>Hour</i>	<i>Title and authors</i>	
11:00-11:20	Modeling of surface finish in selective laser sintering of 316L stainless steel by applying statistical multi-parameter analysis and artificial neural networks. <i>Nikolaos Fountas, John Kechagias, Nikolaos Vaxevanidis, Dimitrios Manolakos</i>	
11:20-11:40	Experimental determination of relationship between selected image capturing setup parameters with respect to the quality of the created topography model. <i>Stoyan Slavov, Lyubomir Si Bao Van, Boris Nikolov</i>	
11:40-12:00	Analyzing 3D roughness parameters for wear scars in sliding on four-ball tester, lubricated with rapeseed oil. <i>Lorena Deleanu, Constantin Georgescu, George Ghiocel Ojoc, Cornel Suci, Traian Florian Ionescu</i>	
12:00-12:20	An advanced tooling system for planar surfaces layer enhancement by using ball burnishing process and CNC milling machines. <i>Oleksandr Markov, Stoyan Slavov, Georgi Valchev</i>	
12:20-12:40	Tribological performance of nanostructured intermetallic electrodeposits at different load-scales. <i>Emmanuel Georgiou, Angelos Koutsomichalis, Nikolaos Vaxevanidis, Dirk Drees, Jean-Pierre Celis</i>	
12:40-13:00	Crack Initiation and growth under cyclic loading in steel, hardfacing with aluminum bronze by TIG welding method. <i>Nikolay Valchev, Yaroslav Argirov, Diyan Dimitrov, Tatyana Mechkarova</i>	
Session 4-B: <i>Lubrication 2</i>		Room: 2.3
Co-chairs: <i>Noel BRUNETIERE Ilie MUSCA</i>		
<i>Hour</i>	<i>Title and authors</i>	
11:00-11:20	Assessing the effectiveness of various fluid and porous material combinations in the process of designing an XPHD thrust bearing. <i>BaPtiste Couderc, Yann Henry, Jean Bouyer, Aurelian Fatu</i>	
11:20-11:40	Experimental and numerical study of a high-speed connecting rod journal bearing. <i>Mihail Rădoi, Yann Henry, Aurelian Fatu</i>	
11:40-12:00	Bulk flow versus CFD solutions in squeeze film damper analyses. <i>Emanuele Giampaolo, Mihai Arghir, Hugo Festjens</i>	
12:00-12:20	Notes regarding the application of the analytical solutions for the squeeze film dampers. <i>Laurențiu Moraru</i>	
12:20-12:40	Simulation of the pressure distribution in a textured cell using the finite element method. <i>Victor Gabriel Marian</i>	
12:40-13:00	Journal bearing analysis with soft, porous lubrication. <i>Duc Hieu Nguyen, Nicolas Herzig, Romeo Glovnea</i>	

Session 4-C: Tribology in Machine Elements		Room: 2.1
Co-chairs: Michel FILLON Oscar CARVALHO		
Hour	Title and authors	
11:00-11:20	Bearing failures in wind turbine gearboxes. <i>Michal Wasilczuk</i>	
11:20-11:40	Bearings for shipbuilding and offshore applications lubricated by environmentally acceptable lubricants (EAL) and its water mixtures – results of experimental research. <i>Wojciech Litwin, Michał Wodtke, Jacek Frost</i>	
11:40-12:00	Preload testing system for angular contact ball bearings using shape memory alloy modules. <i>Andrei Zamă, Viorel Paleu, Gelu Ianuş</i>	
12:00-12:20	Aspects regarding the optimization of mechanical contact between non-standard profile teeth in precessional gearing. <i>Valeriu Dulgheru, Stanislav Slobodeaniuc</i>	
12:20-12:40	Analysis of the influence of rings materials and working conditions on the contact pressure of a double cartridge mechanical seal. <i>Andrei Stanciu, Răzvan George Rîpeanu</i>	
12:40-13:00	Experiments and FE simulation for quasi-static operation of a novel elasto-hydrodynamic damper. <i>Ionuț - Răzvan Nechita, Mircea Pascovici, Petrica Turtoi, Aurelian Fatu, Traian Cicone</i>	
13:00-14:15	Lunch break	
Session 5-A: Friction & Wear 3		Room: 2.2
Co-chairs: Marius PUSTAN Michal RUZEK		
Hour	Title and authors	
14:15-14:35	Surface durability of 3D printed polymer gears. <i>Robert Ciobanu, Ciprian Ion Rizescu, Dana Rizescu</i>	
14:35-14:55	The influence of some factors on the size of the friction coefficient in the case of some specimens from polymeric materials manufactured by 3D printing. <i>Elisaveta Crăciun, Andrei-Marius Mihalache, Margareta Coteață, Adelina Hrițuc, Marius-Ionuț Rîpanu, Oana Dodun, Gheorghe Nagîț, Laurențiu Slătineanu</i>	
14:55-15:15	Tribological characterization of additively manufactured parts by digital light processing, subjected to linear reciprocating motion. <i>Gheorghe Macovei, Marcelin Benchea, Viorel Paleu</i>	
15:15-15:35	Research on tribological behavior of plastic material Necuron 1050. <i>Mirela Romaneț, Ion Nae, George-Răzvan Rîpeanu, Bogdan Roth</i>	
15:35-15:55	Tribological performances of the 3D printed materials used in the construction equipment field. <i>Aristia Ioana Popovici, Mihail Savaniu</i>	
15:55-16:15	The effect of friction on the stability of movement in the brake disc-pad contact with application to vehicles. <i>Nicolae-Alexandru Stoica, Alina-Maria Stoica, Andrei Tudor</i>	
Session 5-B: Lubricants & Tribo-chemistry 2		Room: 2.3
Co-chairs: Victor Gabriel MARIAN Ana-Maria TRUNFIO-SFARGHIU		
Hour	Title and authors	
14:15-14:35	Rheological characterization of mineral oils with additives. <i>Juliana Javorova, Alexandru Valentin Rădulescu, Anelia Mazdrakova, Vesislava Toteva, Silvia Denkova</i>	
14:35-14:55	The effects of carbon-based nanoparticles on friction, wear, and welding point, in different base oils (mineral and vegetable) and oil blends. <i>Jack Nasr, Diana Cursaru</i>	
14:55-15:15	Experimental investigation on lubricating grease degradation. <i>Alexandru Valentin Rădulescu, Irina Rădulescu</i>	
15:15-15:35	Stribeck curve for lubricants with vegetal oils. <i>Lorena Deleanu, Constantin Georgescu, Dionis Guglea, George Cătălin Cristea</i>	
15:35-15:55	Tribological evaluation of the performance of trimethylolpropane ester bio-lubricants based on fatty acids from sunflower oil. <i>Petrică Turtoi, Julien Delcuze, Ionuț - Răzvan Nechita, Alice Marinescu</i>	
15:55-16:15	Rheological research regarding internal combustion engine oils. <i>Andreea Mirela Teleașă, Alexandru Valentin Rădulescu, Sorin Cănanău, Geanina Mihaela Mateescu, Andreea Ștefania Stan</i>	
CONFERENCE CLOSURE		