

PROGRAM - June 20<sup>th</sup>

8h00 - 9h00	<b>Registration</b>		<b>Lobby B</b>
	<b>Session A1</b> <i>Opening and Keynote Lecture 1</i> <i>Chair: Prof. António Monteiro Baptista and Prof. Jorge Seabra</i>		<b>room B002</b>
9h00 - 9h30	<b>OPENING</b>		
9h30 - 10h30	SURFACE LIFE: THE NEXT CHALLENGE IN ROLLING BEARINGS AND OTHER LOADED LUBRICATED CONTACTS Prof. Guillermo Morales-Espejel		
10h30 - 11h00	<b>Coffee-break - Sponsored by FUCHS</b>		
	<b>Session A2</b> <i>Chair: Prof. Guillermo Morales-Espejel and Prof. Armando Campos</i>	<b>ROLLING BEARINGS 1</b>	<b>room B001</b>
11h00 - 11h20	A2.1 A010	TESTING AVIATION OILS AND COMPONENT MATERIALS FOR TRIBOLOGY DESIGN AND PERFORMANCE Lavern Wedeven, William Black, Graham Wedeven, Steven Kratz	
11h20 - 11h40	A2.2 A037	APPLICATION OF A STRUCTURED FAILURE ANALYSIS TO THE TRIBOLOGY OF WEAR: BEARING OIL-OUT EVENT - Herbert A. Chin, David A. Haluck, Lavern Wedeven	
11h40 - 12h00	A2.3 A008	FRICTION ANALYSIS IN BALL BEARINGS Mihai - Tiberiu Lates, Radu Velicu	
12h00 - 12h20	A2.4 A058	TORQUE LOSS ON ROLLING BEARINGS LUBRICATED WITH WIND TURBINE GEAR OILS AT CONSTANT TEMPERATURE - Carlos M. C. G. Fernandes, Pedro M. P. Amaro, Ramiro C. Martins, Jorge H. O. Seabra	
12h30 - 14h00	<b>Lunch</b>		
	<b>Session A3</b> <i>Chair: Prof. Erik Kuhn and Eng. Beatriz Graça</i>	<b>ROLLING BEARINGS 2</b>	<b>room B001</b>
14h00 - 14h20	A3.1 A039	EVOLUTION OF HARDENED AND SOFTENED REGIONS IN RCF AFFECTED ZONES IN M50NiL RODS Abir Bhattacharyya, Ghatu Subhash, Nagaraj Arakere	
14h20 - 14h40	A3.2 A040	DETERMINATION OF MECHANICAL PROPERTIES OF ROLLING CONTACT FATIGUE AFFECTED ZONES IN M50 BEARING STEEL BALLS - Nagaraj Arakere, Ghatu Subhash	
14h40 - 15h00	A3.3 A038	EFFECTS OF SURFACE/SUB-SURFACE COMPRESSIVE RESIDUAL STRESS ON AEROSPACE BEARING BALL PERFORMANCE - David A. Haluck, William P. Ogden, Jeffery J. Covington	
15h00 - 15h20	A3.4 A025	THEORETICAL AND EXPERIMENTAL STUDY OF FRICTION IN BEARING MOUNTINGS Radu Velicu, Mihai - Tiberiu Lates, Radu Saulescu, Alina Todi-Eftimie	
15h30 - 16h00	<b>Coffee-break - Sponsored by FUCHS</b>		
	<b>Session B3</b> <i>Chair: Prof. Amílcar Ramalho and Dr. Ramiro Martins</i>	<b>SURFACE MODIFICATION</b>	<b>room B002</b>
	B3.1 A048	MULTI-BODY DYNAMIC INVESTIGATIONS OF DRY ARTIFICIAL HIP JOINTS WITH A CLEARANCE Ehsan Askari, Paulo Flores, Dane Turner, Richard Appleyard	
	B3.2 A047	CHARACTERIZATION OF MODIFIED STEEL SURFACES WITH SCANNING AUGER AND SCANNING MICROPROBE XPS - J. S. Hammond, D. F. Paul, S. Alnabulsi, W. Betz	
	B3.3 A035	COVERING AND HARDENING STRUCTURED SURFACES BY LASERS ACTIONS FOR TRIBOLOGICAL APPLICATIONS - G. Vasconcelos, D. C. Chagas, K.C. Jorge, R. Riva, C.L. Barbosa, J.G.A.B. Simões, Martins V. G.	
	B3.4 A036	SURFACE TEXTURING DISTRIBUTION FOR CIRCULAR RELATIVE MOTION Alberto Higuera, Andy Cross, José Luis Viesca, Rubén González, Farshid Sadeghi	
	<b>Session B4</b> <i>Chair: Prof. José Pérez-Díaz and Prof. Francisco Silva</i>	<b>GEARS</b>	<b>room B002</b>
16h00 - 16h20	B4.1 A049	PREDICTIVE MAINTENANCE OF A REDUCTOR WITH CONTAMINANTS AND UNBALANCED LOAD Aparecido Gonçalves, Maria de Albuquerque, Murilo Cuerva	
16h20 - 16h40	B4.2 A061	ROUGH WEAR SIMULATION OF SPUR GEAR MESHING José A. Brandão, Ramiro Martins, Jorge H.O. Seabra, Manuel J.D. Castro	
16h40 - 17h00	B4.3 A013	POWER-LOSS EVALUATION OF LOW-LOSS GEARS OPERATING WITH ESTER AND PAO OILS Luis Magalhães, Ramiro Martins, Jorge Seabra	
17h00 - 17h20	B4.4 A063	POWER LOSS IN A MULTIPLIER GEARBOX LUBRICATED WITH WIND TURBINE GEAR OILS Pedro Marques, Carlos Fernandes, Ramiro Martins, Jorge Seabra	
17h20 - 17h45	<b>Poster Session</b>		<b>Lobby B</b>
19h00 - 23h00	<b>Conference Reception</b>		
	<b>Scientific Committee Meeting - IBERTRIB 2015</b>		<b>room B002</b>

**PROGRAM - June 21<sup>th</sup>**

Session A5		<b>Keynote Lecture 2 and Invited Paper</b> <i>Prof. António Monteiro Baptista e Prof. Jorge Seabra</i>	room B002
9h00 - 10h00	A5.1	SELF-LUBRICATING COATINGS -SOLUTION FOR NEAR FRICTIONLESS CONTACTS A. Cavaleiro, M. Evaristo, T. Polcar	
10h00 - 10h30	A5.2 A009	THE WORK ON HYDRODYNAMIC JOURNAL BEARINGS CARRIED OUT AT MINHO UNIVERSITY IN THE LAST 30 YEARS J. C. P. Claro, A. S. Miranda, L. Costa, F. P. Brito, M. Fillon	
10h30 - 11h00	<b>Coffee-break - Sponsored by FUCHS</b>		

Session A6		<b>BEARINGS AND SEALS</b> <i>Chair: Prof. António Sousa Miranda and Prof. Armando Campos</i>	room B001	Session B6		<b>SURFACE COATINGS</b> <i>Chair: Prof. Albano Cavaleiro and Prof. Francisco Silva</i>	room B002
11h00 - 11h20	A6.1 A012	LEVITATION FORCE RELAXATION AND HYSTERESIS IN A FRICTIONLESS SUPERCONDUCTING MAGNETIC BEARING - C. Cristache, E. D.-Jimenez, I. V.-Blanco, M. A.-Valenzuela, J. Garcia-Casarrubios, J. Perez-Diaz		B6.1 A027	COMPARISON OF THE MICRO-ABRASION PERFORMANCE BETWEEN HV0F NI-BASED AND SPUTTERED TISI(V)N COATINGS - F. Fernandes, A. Loureiro, A. Ramalho, A. Cavaleiro		
11h20 - 11h40	A6.2 A020	A NUMERICAL ANALYSIS ON CONSTANT OR VARIABLE VISCOSITY ON OIL BEARINGS - Luigi C. Greco, Roberto M. Souza, Rodrigo L. Stoeterau		B6.2 A028	TRIBOLOGICAL BEHAVIOUR OF W-TI-N COATINGS AGAINST AA5754 ALLOY AT ROOM AND WARM TEMPERATURE - J.M. Figueiredo, A. Cavaleiro, M.C. Oliveira, T. Polcar, L.F. Menezes		
11h40 - 12h00	A6.3 A041	MODELING ELASTOHYDRODYNAMIC MECHANICAL JOINTS UNDER THE FRAMEWORK OF MULTIBODY SYSTEMS - QiangTian, Yanlei Sun, Cheng Liu, Haiyan Hu, Paulo Flores		B6.3 A056	STRUCTURAL AND MECHANICAL CHARACTERIZATION OF W-S-N COATINGS DEPOSITED BY REACTIVE MAGNETRON SPUTTERING - F. Ribeiro, M. Evaristo, T. Polcar, A. Cavaleiro		
12h00 - 12h20	A6.4 A026	MEASUREMENT OF THE PUMP RATE OF RADIAL LIP SEALS DURING LONG TERM TESTS Marco Remppis, Frank Bauer, Werner Haas		B6.4 A055	STUDY OF THE EFFECT OF FILLER CONTENT IN THE TRIBOLOGICAL BEHAVIOUR OF PEEK POLYMER B. Fernandez-Diaz, A. Igartua, M. Conte, F. Pagano, A. K. Schlarb, P. de Baets		
12h30 - 14h00	<b>Lunch</b>						

Session A7		<b>AEROSPACE LUBRICANTS AND IONIC LIQUIDS</b> <i>Chair: Prof. Miguel Delgado e Prof. Jorge Castro</i>	room B001	Session B7		<b>FRICTION AND WEAR 1</b> <i>Chair: Prof. Amílcar Ramalho and Prof. Luis Magalhães</i>	room B002
14h00 - 14h20	A7.1 A043	THE ROLE AND EVOLUTION OF THE AEROSPACE LUBRICANT IN THE DESIGN AND PERFORMANCE OF THE GAS TURBINE ENGINE - Susan C. Brown, Lavern D. Wedeven, Ronald E. Yungk		B7.1 A018	LABORATORIAL AND INDUSTRIAL TRIBOLOGICAL CHARACTERIZATION OF PVD THIN FILMS SUITABLE FOR PLASTIC INJECTION MOULDING - F. J. G. Silva, R. P. Martinho, A. P. M. Baptista		
14h20 - 14h40	A7.2 A003	COPPER-COPPER LUBRICATION AND SURFACE INTERACTIONS WITH PROTIC AND APROTIC IONIC LIQUIDS Tulia Espinosa, Carmen Palazón, José Sanes, Ana-Eva Jiménez, María-Dolores Bermúdez		B7.2 A024	WEAR BEHAVIOUR OF ALUMINUM ALLOYS AT VERY LOW SLIDING SPEEDS Meritxell R. Andrés, Ana C. del Campo, Juan de D. Gonzalez, Ignacio G. Diego		
14h40 - 15h00	A7.3 A005	NEW STRATEGIES FOR THE REDUCTION OF FRICTION AND WEAR OF POLYMERS USING IONIC LIQUIDS AND NANOPHASES - José Sanes, Francisco-José Carrión, C. Espejo, N. Saurin, G. Ojados, María-Dolores Bermúdez		B7.3 A031	INFLUENCE OF THE MICROSTRUCTURE IN THE WEAR PREDICTION OF ALUMINA Álvaro Rico, Felipe Orgaz, Jesús Rodríguez		
15h00 - 15h20	A7.4 A019	FAP-ANION IONIC LIQUIDS AS OIL ADDITIVE IN STEEL-STEEL CONTACTS Alberto García, Rubén González, Antolin Hernández, José L. Viesca, Alfonso Fernández		B7.4 A044	INFLUENCE OF PLASTIC DEFORMATION ON SLIDING FRICTION OF ALUMINIUM ALLOY 5083 João Miranda, A. Ramalho		
15h30 - 16h00	<b>Coffee-break - Sponsored by FUCHS</b>						

Session A8		<b>LUBRICANT ADDITIVES</b> <i>Chair: Dr. Francisco José Carrion and Dr. José Brandão</i>	room B001	Session B8		<b>FRICTION AND WEAR 2</b> <i>Chair: Prof. Alexandre Sottomayor and Dr. Ramiro Martins</i>	room B002
16h00 - 16h20	A8.1 A011	RELAXATION OF THE WATER SURFACE TENSION BY HUMIDIFICATION OF THE ENVIRONMENT M. N. Á.-Valenzuela, Juan S. Garcia-Casarrubios, I. V.-Blanco, E. D.-Jimenez, C. Cristache, Jose L. Pérez-Díaz		B8.1 A042	EFFECT OF SINTERING TEMPERATURE OF TWO LITHIUM DISILICATE BASED GLASSES IN RECIPROCATING WEAR TESTS PERFORMANCE - P. V. Antunes, A. Ramalho, J.M.F. Ferreira, H.R. Fernandes		
16h20 - 16h40	A8.2 A007	INFLUENCE OF THE LUBRICATING ADDITIVE IN SLIDING WEAR SYSTEM ANALIZED BY RAMAN SPECTROSCOPY - Ane Cheila Rovani, Michel Mermeux, Amilton Sinatora		B8.2 A054	MECHANICAL AND TRIBOLOGICAL PERFORMANCES OF POLYPROPYLENE COMPOSITES CONTAINING MULTI-WALLED CARBON NANOTUBES - A. Sinan Dike, Harun Mindivan		
16h40 - 17h00	A8.3 A014	POTENTIAL USE OF ESTOLIDES AS ADDITIVE ON VEGETABLE OIL-BASED LUBRICANTS L.A. Garcia-Zapateiro, J.M. Franco, C. Valencia, M.A. Delgado, C. Gallegos		B8.3 A015	EFFECT OF VARYING FRICTION DUST AND RESIN ON DISC BRAKE PAD: STABILITY AND SENSITIVITY OF $\mu$ TO PRESSURE AND SPEED - M.A. Sai Balaji, K. Kalaichelvan, T.N. Venkat Ramani, S. Mohanamurugan		

17h00 - 17h15	<b>CONFERENCE CLOSURE</b>						
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