

“Bearings operating with non-conventional lubricants”

Thursday October 2, 2025	
8h00 – 9h00	Registration
9h00 – 9h15	General Introduction: CETIM, Pprime, University of Poitiers
9h15 – 10h00	Keynote session A) <u>Reimagining Wind Turbine Lubrication: From Life-Extended Oils to Bio-Based Greases</u> Max MARIAN <i>Institute of Machine Design and Tribology at Leibniz University Hannover</i> 10h00 – 10h15 Questions Chairman: J. Bouyer
10h15 – 10h45	
10h15 – 10h45	Coffee Break - Discussions
10h45 – 11h15	Technical Session 1 B) <u>Development of a test rig for bearing performance in hydrogen environment</u> Vellaine V <i>CEntre Technique des Industries Mécaniques –74 route de la Jonelière – BP82617 – 44236 Nantes Cedex3 – France</i> 11h15 – 11h45 C) <u>Hoop tensile test of PEEK bearing cages in cryogenic conditions</u> Rostain C, Fiore G, Prevost L <i>Centre national d'études spatiales - CNES 52 rue Jacques Hillairet, 75012 Paris - France</i> 11h45 – 12h15 D) <u>Towards ecological alternatives in bearing lubrication</u> Bou-Saïd B ^a, Bouchehit B ^b, Tichy J ^c ^a INSA-Lyon, LaMCoS, CNRS, UMR5259, F-69621, France ^b Rensselaer Polytechnic Institute, Troy New York 12180-3590 USA ^c August 20 1955 University of Skikda. Algeria Chairman: Y. Henry
11h15 – 11h45	
11h45 – 12h15	
12h15 – 14h15	Lunch
14h30 – 15h00	Technical Session 2 G) <u>Design and testing of a herringbone air rotor-bearing system for low-power rotating machinery</u> Tisserand R, Arghir M <i>Institut Pprime, UPR 3346, Université de Poitiers, Isae Ensma, France</i> 15h00 – 15h30 H) <u>An insight on the void fraction distribution in a large high-speed journal bearing</u> Engels A ^a, Wettmarshausen S ^b, Hagemann T ^b, Bender B ^a, Schwarze H ^b ^a Institute of Product Development, Ruhr-University Bochum, Universitätsstraße 150, 44801 Bochum ^b Institute of Tribology and Energy Conversion Machinery, Clausthal University of Technology, Leibnizstr. 32,38678 Clausthal-Zellerfeld, Germany 15h30 – 16h00 I) <u>Design and construction of a novel reciprocating pin-on-plate wear testing machine</u> Abdelbary A, Saad Y <i>Consulting Engineer, Alexandria, Egypt</i> Chairman: L. Amami
15h00 – 15h30	
15h30 – 16h00	
16h30– 19h00	Guided visit in Poitiers's downtown
20h00 – 23h00	Gala diner (mandatory registration)

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Friday October 3, 2025	
8h00 – 9h00	Registration
Technical Session 3	
9h00 – 9h30	D) <u>Tribological behavior of biodegradable lubricants under mixed conditions: towards sustainable integration in bearings</u> Ronfard P^a, Chen Y-M^b ^a Centre Technique des Industries Mécaniques - 7 rue de la Presse, CS 50802 42952 Saint-Etienne Cedex 1 France ^b Centre Technique des Industries Mécaniques - 52 avenue Félix Louat BP 80067 60304 Senlis Cedex France
9h30 – 10h00	E) <u>Tribological challenges of switching to water-lubricated bearings in compressors</u> Keshthkar H^a, Natarajan C^b, Tian Z^b, Buckney D^c, Wharton J^b, Wood R^b, Abbasi H^a, Kovacevic A^a ^a City St Georges University of London, Northampton Square, London EC1V 0HB, UK ^b University of Southampton, University Road, Southampton SO17 1BJ, UK ^c MAYEKAWA UK LTD, 3 Eagle Street, Glasgow, G4 9XA, UK
10h00 – 10h30	F) <u>Wear tests of a hydrodynamic journal bearing lubricated with magnetorheological fluid</u> Van Der Meer G^a, Wodtke M^b, Litwin W^b, Van Ostayen R^a ^a Department of Precision and Microsystems Engineering, Delft University of Technology, Mekelweg 2, Delft, 2628 CD, The Netherlands ^b Faculty of Mechanical Engineering and Ship Technology, Gdansk University of Technology, ul. Narutowicza 11/12, 80-233 Gdańsk, Poland
Chairman: M. Fillon	
10h30 – 11h00	Coffee Break - Discussions
Technical Session 4	
11h00 – 11h30	D) <u>Recent Development works on Plain Bearings for Wind Turbine Gearbox</u> Li Yujuan, Wang Wen Shanghai University, No. 99, Shangda Road, Baoshan District, Shanghai, China
11h30 – 12h00	E) <u>Reducing Power Losses in Tilting Pad Bearings</u> Blumenfeld M^a, Fabijonas BR^b, Tian W^a, Hawkins H^a, Rodzvic R^b ^a ExxonMobil Technology & Engineering Company, Annandale, NJ, 08801, USA ^a Kingsbury, Inc, 10385 Drummond Rd, Philadelphia, PA, 19154, USA
12h00 – 12h30	F) <u>Effect of abrasive particles in lubricating oil on the performance of hydrodynamic journal bearings used in aircraft engine power transmission systems: numerical approach</u> Bouajila H.^{a,b}, Bouyer J^a, Jolly P^a, Pap B^b, Cole J^b, Aoues Y^c ^a Institut Pprime, UPR CNRS 3346, Université de Poitiers, Isae Ensma, Chasseneuil, France ^b Safran TS, 18, boulevard Louis-Seguin , 92707 Colombes Cedex - France ^c Laboratoire de Mécanique de Normandie, Normandie Université, INSA Rouen Normandie, Rouen 76000, France
Chairman: A. Fatu	
12h30	Prix Michel Fillon (best paper) ; Closure
	Lunch cocktail