

“Condition Monitoring, Performance Improvement and Safe Operation of Bearings”

Thursday October 6, 2011

8h00-8h40	Registration
8h40-9h00	General introduction by EDF/Pprime – Presentation of the program
9h00-9h40	Keynote session A) “Approaches to the safer operation of thrust and journal bearings used in turbomachinery” Dr. Tadashi Tanaka Chief Engineer, Daido Metal Co, Japan
9h40-9h50	Questions
9h50-10h00	Presentation of the posters Chairman: J. Bouyer
10h00-10h45	Coffee Break - POSTER Session
10h45-11h15	Technical session 1: Experiments and Dynamic Behaviour B) “Identification of force coefficients in a 5-pad tilting pad bearing with an integral squeeze film damper” Delgado A., Mitaritonna N., Catanzaro M., Gerbet M. GE Global Research, USA, GE Oil & Gas, Italy, GE Oil & Gas, France.
11h15-11h45	C) “Identification of stiffness, damping and added mass coefficients measured on BALAFRE test rig. Comparisons with theoretical results” Hassini A., Jolly P., Arghir M., Bonneau O. Institut Pprime, France.
11h45-12h15	D) “Performance Improvement of Tilting-Pad Journal Bearings by Means of Controllable Lubrication” Cerde A., Santos I., DTU, Denmark. Chairman: M. Arghir
12h30-14h00	Lunch
14h30-15h00	Technical session 2: Thrust Bearing Performance Improvement (I) E) “Application of a PEEK coated thrust bearing on the occasion of a refurbishment of a large hydro power plant with concurrent load increase” Schubert A., Brescianini T., Alstom Power Hydro, Switzerland.
15h00-15h30	F) “Enhanced Hydrodynamic Thrust Bearing Analyses of Turbo Sets for Power Generation” Lüeneburg B., Kraft C., Dettmar D., Mermertas U., Schwarze H., Siemens AG, Institut für Tribologie und Energiewandlungsmaschinen, Germany.
15h30-16h00	G) “Multiphysics modeling of a tilting pad thrust bearing with polymeric layered pads” Ricci R., Chatterton S., Pennacchi P., Vania A., Politecnico Di Milano, Italy. Chairman: T. Tanaka
16h00-16h45	Coffee Break - Discussions - POSTER Session
16h45-17h15	Technical session 3: Lubricant Contamination and Distortion Effects H) “Lubrication with water contaminated oil: experiments on a tilting pad thrust bearing” Harika E., Hélène M., Bouyer J., Fillon M., EDF R&D, France, Institut Pprime, France.
17h15-17h45	I) “Influence of particle concentration and rheological properties of a lubricant on bearing behaviour” Bou-Said B., Boucherit H., Lahmar M., Insa de Lyon, France, Guelma University, Algeria.
17h45-18h15	J) “Rubbing on steam turbine coming from case distortion on the condenser” Gaslonde Prats M., Péton N., General Electric, Spain, General Electric, France. Chairman: A. Dadouche
18h45	Departure for the 10th edition dinner (mandatory registration)

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Friday October 7, 2011

8h00-9h00	Registration - Coffee
9h00-9h30	Technical session 4: Condition Monitoring K) “Effects of Contaminants on Performance and Wear of Journal Bearings Operating under Hydrodynamic Lubrication Regime” Duchowski J.K., Zitt R., HYDAC Filtertechnik GmbH, Germany, HYDAC, France.
9h30-10h00	L) “Tribology for health monitoring of bearings in an aerospace electro-mechanical actuator” Fernandez S., Isturiz A., Arnaiz A., Vinals J., Basagoiti R., Igartua A., Tekniker-IK4, Spain Sener Ingeniería y sistemas, Spain, Mondragon University, Spain.
	Chairman: M. Hélène
10h00-10h45	Coffee Break - POSTER Session
10h45-11h15	Technical session 5: Bearing Wear and Shaft Defects M) “Wear prediction of connecting rod bearing” Dutfoy L. and Ligier J-L., Powertrain Division, Renault, France.
11h15-11h45	N) “Steam Turbine rotor crack” Popaleny P., Péton N., General Electric, Slovakia, General Electric, France.
11h45-12h15	O) “Model of Journal Bearing System with Out-Of-Roundness Defect” Bompos D.A., Farmakopoulos M.G., Nikolakopoulos P.G., Papadopoulos C.A., University of Patras, Greece.
	Chairman: S. Glavatskih
12h30-14h00	Lunch
14h30-15h00	Technical session 6: Journal Performance Improvement P) “Experimental Evaluation of Steady-State and Dynamic Performance of Hydrodynamic Journal Bearings: Plain Versus Textured-Surface” Dadouche A., Conlon M.J., Dmochowski W.M., Koszela W., Galda L., Pawlus P., NRC, Canada, Rzeszow University of Technology, Poland.
15h00-15h30	Q) “On power loss reduction in journal bearings” Kuznetsov E., Glavatskih S., COMSOL AB, Sweden, Lulea University of Technology, Sweden.
15h30-16h00	R) “Experimental Comparison of the Performance of a Journal Bearing with a Single and a Twin Axial Groove Configuration” Brito F.P., Miranda A. S., Claro J. C. P., Fillon M., Universidade do Minho, Portugal, Institut Pprime, France.
	Chairman: J-L. Ligier
16h00-16h30	Coffee Break - POSTER Session
16h30-17h00	Technical session 7: Thrust Bearings Performance Improvement (II) S) “Experimental investigation on flat parallel surface thrust bearings” Henry Y., Bouyer J., Fillon M., Delamour F., Institut Pprime, France, SNECMA groupe SAFRAN, France.
17h00-17h30	T) “Experimental study of different supply designs in hydrodynamic thrust bearings” Rotta G., Wasilczuk M., Wodtke M., Gdansk University of Technology, Poland.
	Chairman: M. Fillon
17h30-17h45	Assessment - Discussion
17h45	Cocktail

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POSTER SESSIONS - October 6 & 7 2011

10h00-10h45
&
16h00-16h45

U) “Fatigue prediction for engine bearing”

Ligier J-L. and Dutfoy L., *Powertrain Division, Renault, France.*

V) “Mesh Profiles of Pressure and Flux Components of Journal Bearings of Finite Length”

Pan C., *Global Technology, USA.*

W) “On a New Bearing Standard of Wind Power Machines in China”

Zhao L., *Limin Institute of Tribology, China.*

X) “An Experimental Investigation on the Risk of Seizure in Circumferential Groove Journal Bearings – Comparison with Theoretical Models”

Cristea A., Bouyer J., Fillon M., Pascovici M.D., *Politehnica University of Bucharest, Romania, Institut Pprime, France.*

Y) “Balancing of Aeroderivative gas turbine”

Christin G., Péton N., *General Electric, France.*