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[Google Scholar](https://scholar.google.com/citations?user=...) [Research Gate](https://orcid.org/...)**Education:**

- “Habilitation à Diriger les Recherches”, University of Poitiers, 1995.
- Doctorat de 3^{ème} Cycle, Mechanics, Université de Poitiers, 1985.
- DEA in Mechanics, University of Poitiers, 1982.
- “Maitrise” Mechanics and Technology, University of Poitiers, 1981.
- “Licence” Mechanics and Technology, University of Poitiers, 1980.
- “DUT” Mechanics, University of Poitiers, 1978.
- Baccalauréat E, Mathematics and Mechanics, Saintes, 1976.

Present occupation:

- C.N.R.S. Director of Research, Pprime Institute, University of Poitiers.

Research interests:

Thermal effects in hydrodynamic journal and thrust bearings, non-laminar regime, transient effects, risk of bearing seizure, misalignment effects, thermal and mechanical deformations, dynamically loaded bearings, mixed lubrication, lubrication of textured surfaces and wear of hydrodynamic bearings, PTFE and PEEK layered journal and thrust tilting pad bearings, theoretical analyses and numerical simulations under THD or TEHD regime and experimental analyses (test device for fixed geometry and tilting-pad journal bearings and test apparatus for thrust bearings), ...

Public sector occupations:

- Researcher, LMS, University of Poitiers, from 01.08.81 to 30.09.81,
- Researcher, LMS, University of Poitiers, from 01.08.82 to 30.09.82,
- Researcher, LMS, University of Poitiers, from 01.10.82 to 31.10.84,
- Researcher (contract), LMS, University of Poitiers, from 01.11.84 to 30.08.86,
- CNRS Researcher, grade 1, LMS, University of Poitiers, from 15.05.88 to 30.09.99,
- CNRS Director of Research, grade 2, LMS, University of Poitiers, from 01.10.99 to 30.09.12.,
- CNRS Director of Research, grade 1, Institut Pprime, University of Poitiers, since 01.10.12.

Private professional experience:

- Engineer at ARMEF (Association for the rationalization and the mechanization of lumbering), Angers, from 01.10.86 to 30.04.88.

- Fellow of the Society of Tribologist and Lubrication engineers (STLE) in 2010, Member since 1994,
- Fellow of the American Society of Mechanical Engineers (ASME) in 2015, Member since 1994,
- Member of the “Association Française de Mécanique” (AFM) since 1999.

Activities and current responsibilities:

- Director of “Branche Mécanique des Solides” of the “Institut Pprime” (2010 & 2011),
- Manager of the Lubricated Contact Mechanics Research Group (2002 to 2009), Laboratory of Solid Mechanics, University of Poitiers, UMR CNRS 6610,
- Member of the Laboratory Council (1990-2011),
- Member of the ASME French Section Board (since 1999), treasurer and Webmaster (since 2003), https://community.asme.org/france_section/b/weblog/default.aspx
- Chair of Research Committee of ASME Tribology Division (from 2006 to 2008),
- Member of Research Committee of ASME Tribology Division (2008-2010),
- Member of Executive Committee of ASME Tribology Division (from 2006 to 2008),
- Member of Board of Directors of STLE (since May 2016) (http://www.stle.org/files/About_STLE/Leadership/Board_of_Directors/files/Directories/Board_of_Directors.aspx?hkey=7e93d029-2fd0-463a-a9a5-fe5a7c14c40b),
- Editor-in-Chief of Tribology International (from October 2014) <http://www.journals.elsevier.com/tribology-international>,
- Associate Editor-in-Chief of “Mechanics & Industry” (EDPSciences) (since 2016, Associate Editor from 2000 to 2016),
- Associate Editor of Lubricants (since 2017, Editorial Board from 2015 to 2017),
- Associate Editor of ASME Journal of Tribology (2003-2006 and 2006-2009),
- Editorial Board of IMechE Part J, Journal of Engineering Tribology (from 2007),
- Editorial Board International Journal of Surface Science and Engineering (from 2007),
- Editorial Board of Hindawi Publ. Corp., Advances in Tribology (from 2009),
- Editorial Board of The Annals of University ‘Dunarea de Jos’ of Galati, Fascicle Tribology (from 2009),
- Editorial Board of ISRN Tribology (from 2012),
- Editorial Board of International Journal of Applied Mechanics and Engineering (from 2014),
- Section Editor (*Conformal-Contact Lubrication*) of the “Encyclopedia of Tribology”, (Springer), <http://link.springer.com/referencework/10.1007/978-0-387-92897-5>
- Coeditor with Andy Olver "Imperial College London" for a Special Section on “*Surface Engineering and Surface Texture*”, Journal of Engineering Tribology, Part J, Vol. 224, N° J8, Editorial page i and 7 publications, pages 685-763.
- Coeditor with Noël Brunetière "Dept GMSC, Institut Pprime" for a Special Issue on “*Mixed Lubrication in Hydrodynamic Contacts*”, Journal of Engineering Tribology, Part J, Vol. 226, N° J12, Editorial page 1009 and 9 publications pages 1010-1153.
- Coeditor with Romeo Glovnea "University of Sussex" for a Special Issue on “*Friction and Lubrication of Bearing*”, Lubricants, 15 publications, (http://www.mdpi.com/journal/lubricants/special_issues/bearings).

Awards:

- Awards Certificate of Appreciation from ASME Tribology Division, International Coordination Committee, for organizing the 5th EDF/LMS Poitiers Workshop in 2006.
- Prof. Eng. Pub. Best Paper Award for the paper published in the Proc. of the IMechE, Part J: Journal of Engineering Tribology in 2009: “*About the validity of Reynolds equation and inertia effects in textured sliders of infinite width*” by M B Dobrica and M Fillon, *IMechE Proc Part J*, 223(J1), 69-78 DOI: 10.1243/13506501JET433.
- Best Poster Award by Section France of ASME in 2013: “*The role of lubricant feeding conditions on the performance improvement and friction reduction of journal bearings.*” by BRITO F.P., MIRANDA A.S., CLARO J.C.P., TEIXEIRA J.C., COSTA L., FILLON M. at 12th EDF/Pprime Workshop on “*Solutions for performance improvement and friction reduction of journal and thrust bearings*”, *Futuroscope*, 17 & 18 September.

Didactic activities:

- Tribology and Lubrication:
- ISAE-ENSMA, Futuroscope (Mech. Eng. School, 1990-2012, Master TAT since 2012),
 - University of Poitiers (Maîtrise de Mécanique 1990-1998, DESS CMPM 1991-2004),
 - ENSAM, Châlons-en-Champagne (2004 & 2007-2011).

Other activities:

Organization of workshops and conferences:

- **1990**, at Poitiers, organizer of “*Journées de la Société Française de Tribologie*”,
- **1997**, at Futuroscope, member of the Organization Committee and of Scientific Committee of “*Congrès Français de Mécanique*”,
- **2000**, at Futuroscope, ENSMA, organizer of “*Véhicule du 21^{ème} siècle*”, French Section of ASME,
- **2005**, in Washington, Track Co-Organizer with Benyebka Bou-Said of “*Conformal Contact Bearings*”, “*World Tribology Conference III*”,
- **2007 & 2008**, in Philadelphia and Cleveland, respectively, Paper Solicitation Chair of the “*Fluid Film Bearings*”, *STLE Annual Meeting*,
- **2002, 2004, 2006, 2008, 2010, 2011, 2013, 2015** and **2017**, at Futuroscope, organizer of “*EDF/LMS Poitiers Workshop*” or “*EDF/Pprime Workshop*” (<http://edf-pprime-2017.sciencesconf.org/>)
- **2014** and **2017**, at Marrakesh, Co-Organizer of “*1st and 2nd African Conference in Tribology*”, (<https://act17-emc3b.sciencesconf.org/>)
- **2010 to 2018**, member of the *Annual Meeting Program Committee* of STLE, Vice-Chair in 2016-2017.

Since 1995, reviewer of 317 manuscripts submitted to “ASME Journal of Tribology”, “Tribology Letters”, “STLE Tribology Transactions”, “Tribology International”, “IEAust’s Mechanical Engineering Transactions”, “Journal of Engineering Tribology, Part J”, “Lubrication Science”, “Wear”, “Lubrication Science”, “IMEchE Journal of Automobile Engineering, Part D”, “ASME Journal of Engineering for Gas Turbines and Power”, “ASME Journal of Mechanical Design”, “ASME Journal of Fluids Engineering”, “ASME Journal of Vibration and Acoustics”, “International Journal of Surface Science and Engineering (IJSurfSE)”, “Revue Européenne des Elements Finis”, “International Journal of Thermal Sciences”, “International Journal of Applied Mechanics and Engineering”, “Engineering Applications of Computational Fluid Mechanics”, “International Journal of Mechanical Sciences”, “Advances in Tribology (Hindawi)”, “Applied Thermal Engineering”, “ISRN Tribology (Hindawi)”, “Advances in Mechanical Engineering (Hindawi)”, “International Journal of Structural Integrity”, “Journal of Zhejiang University-SCIENCE A”, Development and Applications of Oceanic Engineering (DAOE), Engineering Applications of Computational Fluid Mechanics, Journal of Mechanics, Mechanical Systems and Signal Processing, Applied Mathematical Modelling, Journal of Hydrodynamics (Ser. B) ...

Direction of research:

of 24 students preparing their Master Degree,
of 24 students preparing their “Doctorat d’Université” or “Doctorat d’Etat” and “Post-Doctorat”.

International collaboration:

University of Pittsburgh (USA), Politehnica University of Bucharest (Romania), University of Minho (Portugal), University of Lulea (Sweden), Engineering School of Mohammedia (Morocco), Institute for Aerospace Research at NRC of Ottawa (Canada), Queensland University of Technology of Brisbane (Australia), Technical University of Gdansk (Poland), Technical University of Denmark (Denmark); Technical and Science University of Oran (Algeria), Saad Dahlab University of Blida (Algeria), National Technical University of Athens (Greece) and University of Patras (Greece).

Publications and conferences:

87 publications in International Journals

28 in ASME Journal of Tribology, **17** in Journal of Engineering Tribology (IMEchE), **15** in Tribology International, **9** in STLE Tribology Transactions, **2** in International Journal of Applied Mechanics and Engineering, **5** in Mechanics & Industry, **1** in ASME Journal of Engineering for Gas Turbines and Power, **1** in Lubrication Science, **1** in Friction, **1** in Journal de Mécanique Théorique et Appliquée, **1** in Schmierungstechnik, **1** in Revue Générale de Thermique (An International Journal of Thermal Sciences),

...

11 chapters of books

- “Surfaces, Tribologie et Formage des Matériaux” ISBN 2-911762-25-8 (2001),
- “Tribology Research Advances” ISBN 978-60692-885-1 (2009),
- **9 chapters** In: Wang, Q. Jane; Chung, Yip-Wah (Eds.), Encyclopedia of Tribology, Springer, New York, ISBN 978-0-387-92896-8 (2013).

8 Discussions and closures in International Journals (ASME Journal of Tribology)

7 publications in National Journals

2 in Mécanique & Industries, 1 in Tribologia, 2 in Mecânica Experimental, 1 in Matériaux et Techniques, ...

15 Plenary sessions and Invited Conferences

1998 - 6as Jornadas Portuguesas de Tribologia, Coïmbra (Portugal), 2005 - Ibertrib'2005, Guimeraes (Portugal), 2007 - International Workshop on Modelling and Numerical Methods in Lubrication Technologies, La Coruña (Spain), 2010 - ROTRIB'10, Iasi (Romania), 2010 - CIMA'2010, Annaba (Algérie), 2011 - NTC-2011, Roorkee (India), 2012 - 1st MARINELIVE Conference, Athens (Greece), 2013 - Workshop'2013, Annaba (Algérie), 2013 - IBERTRIB 2013, Porto (Portugal), 2014 - 2nd MARINELIVE Conference, Athens (Greece) and 9th IFToMM ICORD 2014, Milan (Italy), 2016 - 50th anniversary Peter Jost Report, London (UK) and International Scientific Symposium “Hydrodynamic Lubrication Theory XXI”, Oryol (Russia), 2017 - ECOTRIB 2017, Ljubljana (Slovenia), 6th World Tribology Congress, WTC'2017, Beijing, (China).

154 International Conferences,

44 National Conferences,

70 Seminars & Lectures.

Selected publications:

- BONCOMPAIN R., FILLON M., FRENE J., (1986) "Analysis of thermal effects in hydrodynamic bearings." *ASME Journal of Tribology*, Vol. 108, N° 2, pp. 219-224.
- FILLON M., BLIGOU D., FRENE J., (1992) "Experimental study of tilting-pad journal bearings - Comparison with theoretical thermoelastohydrodynamic results." *ASME Journal of Tribology*, Vol. 114, N° 3, pp. 579-588.
- DESBORDES H., FILLON M., FRENE J., CHAN HEW WAI C., (1995) "The effects of three-dimensional pad deformations on tilting-pad journal bearings under dynamic loading." *ASME Journal of Tribology*, Vol. 117, N°3, pp. 379-384.
- BOUARD L., FILLON M., FRENE J., (1996) "Comparison between three turbulent models - Application to thermohydrodynamic performances of tilting-pad journal bearings." *Tribology International*, Vol. 29, N°1, pp. 11-18.
- MONMOUSSEAU P., FILLON M., FRENE J., (1997) "Transient thermoelastohydrodynamic study of tilting-pad journal bearings - Comparison between experimental data and theoretical results." *ASME Journal of Tribology*, Vol. 119, N°3, pp. 401-407.
- MONMOUSSEAU P., FILLON M., FRENE J., (1998) "Transient thermoelastohydrodynamic study of tilting-pad journal bearings under dynamic loading." *ASME Journal of Engineering for Gas Turbines and Power*, Vol. 120, N°2, pp. 405-409.
- PIERRE I., FILLON M., (2000) "Influence of Geometric Parameters and Operating Conditions on Thermohydrodynamic Behaviour of Plain Journal Bearings." *Journal of Engineering Tribology*, Part J, Vol. 214, N° J5, pp. 445-457.
- KUCINSCHI B., FILLON M., PASCOVICI M., FRENE J., (2000) "A Transient Thermoelastohydrodynamic Study of Steadily Loaded Plain Journal Bearings using Finite Element Method Analysis." *ASME Journal of Tribology*, Vol. 122, N° 1, pp. 219-226.
- BOUYER J., FILLON M., (2002) "An Experimental Analysis of the Misalignment Effects on Hydrodynamic Plain Journal Bearing Performances." *ASME Journal of Tribology*, Vol. 124, N° 2, pp. 313-319.
- GLAVATSKIKH S., FILLON M., LARSSON R., (2002) "On the Significance of Oil Thermal Properties on the Performance of a Tilting Pad Thrust Bearing." *ASME Journal of Tribology*, Vol. 124, N° 2, pp. 377-385.
- COSTA L., MIRANDA A.S., FILLON M., CLARO J.C.P., (2003) "An analysis of the influence of oil supply conditions on the thermohydrodynamic performance of a single-groove journal bearing." *Journal of Engineering Tribology*, Part J, Vol. 217, N° J2, pp. 133-144.
- FILLON M., BOUYER J., (2004) "Thermohydrodynamic Analysis of a Worn Plain Journal Bearing." *Tribology International*, Vol. 37, N°2, pp. 129-136.
- BOUYER J., FILLON M., (2004) "Relevance of thermoelastohydrodynamic model in the analysis of a plain journal bearing subjected to severe operating conditions." *Journal of Engineering Tribology*, Part J, Vol. 218, N° J5, pp. 365-377.
- GLAVATSKIKH S., FILLON M., (2006) "TEHD analysis of thrust bearings with PTFE-faced pads." *ASME Journal of Tribology*, Vol. 128, N° 1, pp. 49-58.
- DOBRICA M., FILLON M., (2006) "Thermohydrodynamic Behavior of a Slider Pocket Bearing." *ASME Journal of Tribology*, Vol. 128, N° 2, pp. 312-318.
- DADOUCHE A., FILLON M., DMOCHOWSKI W., (2006) "Characteristics of a Hydrodynamic Fixed Geometry Thrust Bearing: Comparison Between Experimental Data and Numerical Results." *STLE Tribology Transactions*, Vol. 49, N°3, pp. 419-426.
- DOBRICA M., FILLON M., MASPEYROT P., (2006) "Mixed EHD Lubrication in partial journal bearings – Comparison between deterministic and stochastic models." *ASME Journal of Tribology*, Vol. 128, N° 4, pp. 778-788.

- HARGREAVES D., FILLON M.**, (2007) "Analysis of Tilting Pad Journal Bearing to avoid Pad Fluttering.", *Tribology International*, Vol. 40, N°4, pp. 607-612.
- BRITO F.P., BOUYER J., FILLON M., MIRANDA A.S.**, (2007) *Experimental Investigation of the Influence of Supply Temperature and Supply Pressure on the Performance of a Two Axial Groove Hydrodynamic Journal Bearing.* "ASME *Journal of Tribology*", Vol. 129, N° 1, pp. 98-105.
- BOUYER J., FILLON M., PIERRE-DANOS I.**, (2007) "Influence of wear on the behavior of a two-lobe hydrodynamic journal bearing subjected to numerous start-ups and stops." ASME *Journal of Tribology*, Vol. 129, N°1, pp. 205-208.
- FILLON M., DADOUCHE A., DMOCHOWSKI W.**, (2007) "Numerical study of the sensitivity of tilting pad journal bearing performance characteristics to manufacturing tolerances: steady state analysis." *STLE Tribology Transactions*, Vol. 50, N°3; pp. 387-400.
- TALA IGHIL N., MASPEYROT P., FILLON M., BOUNIF A.**, (2007) "Contribution to the study of surface texture effects on journal bearing performance under steady state operating conditions." *Journal of Engineering Tribology*, Part J, Vol. 221, N° J6, pp. 623-633.
- FILLON M., GLAVATSKIH S.**, (2008) "PTFE-faced center pivot thrust pad bearings: factors affecting TEHD performance." *Tribology International*, Vol. 41, N°12, pp. 1219-1225.
- DMOCHOWSKI W., FILLON M., DADOUCHE A.** "Numerical Study of the Sensitivity of Tilting-Pad Journal Bearing Performance Characteristics to Manufacturing Tolerances: Dynamic Analysis." *STLE Tribology Transactions*, Vol. 51, N°5; pp. 573-580, (2008).
- DOBRICA M., FILLON M., MASPEYROT P.** "Influence of Mixed-Lubrication and Rough Elastic-Plastic Contact on the Performance of Small Fluid Film Bearings." *STLE Tribology Transactions*, Vol. 51, N°6; pp. 699-717, (2008).
- DOBRICA M., FILLON M.** "About the Validity of Reynolds Equation and Inertia Effects in Textured Sliders of Infinite Width." *Journal of Engineering Tribology*, Part J, Vol. 223, N° J1, pp. 69-78, (2009). *Awarded Best Paper 2009.*
- PASCOVICI M., CICONE T., FILLON M., DOBRICA M.**, (2009) "Analytical investigation of a partially textured parallel slider." *Journal of Engineering Tribology*, Part J, Vol. 223, N° J2, pp. 151-158.
- DOBRICA M., FILLON M., PASCOVICI M., CICONE T.**, (2010) "Optimizing surface texture for hydrodynamic lubricated contact using a mass-conserving numerical approach." *Journal of Engineering Tribology*, Part J, Vol. 224, N° J8, pp. 737-750.
- BOUYER J., FILLON M.**, (2011) "Experimental measurement of the friction torque on hydrodynamic plain journal bearings during start-up." *Tribology International*, Vol. 44, N°7-8, pp. 772-781.
- CRISTEA A.F., BOUYER J., FILLON M., PASCOVICI M.D.**, (2011) "Pressure and Temperature field measurements of a lightly loaded circumferential groove journal bearing." *STLE Tribology Transactions*, Vol. 54, N°5; pp. 806-823.
- DOBRICA M., FILLON M.**, (2012) "Performance degradation in scratched journal bearings." *Tribology International*, Vol. 51, July, pp. 1-10.
- BRITO F.P., MIRANDA A.S., CLARO J.C.P., FILLON M.**, (2012) "Experimental Comparison of the Performance of a Journal Bearing with a Single and a Twin Axial Groove Configuration." *Tribology International*, Vol. 54, October, pp. 1-8.
- WODTKE M., FILLON M., SCHUBERT A., WASILCZUK M.**, (2013) "Study of the influence of heat convection coefficient on predicted performance of a large tilting-pad thrust bearing." ASME *Journal of Tribology*, Vol. 135, N° 2, 021702, pp. 1-11.
- PAPADOPOULOS C.I., KAIKTSIS L., FILLON M.**, (2014) "CFD Thermohydrodynamic Analysis of 3-D Sector-pad Thrust Bearings with Rectangular Dimples." ASME *Journal of Tribology*, Vol. 136, N° 1, 011702, pp. 1-11.
- HENRY Y., BOUYER J., FILLON M.**, (2014) "Design of an experimental hydrodynamic thrust bearing device – Application to the study of a tapered-land thrust bearing." ASME *Journal of Tribology*, Vol. 136, N° 2, 021703, pp. 1-11.
- BRITO F.P., MIRANDA A.S., CLARO J.C.P., TEIXEIRA J.C., COSTA L., FILLON M.**, (2014) "Thermohydrodynamic modelling of journal bearings under varying load angle and negative groove flow rate." *Journal of Engineering Tribology*, Part J, Special Issue on Sliding Bearings, Vol. 228, N° 9, pp. 955-973.
- FOUFLIAS D., CHARITOPOULOS A., PAPADOPOULOS C., KAIKTSIS L., FILLON M.**, (2015) "Performance Comparison between Textured, Pocket and Tapered-land Sector-pad Thrust Bearings using CFD Thermohydrodynamic Analysis." *Journal of Engineering Tribology*, Part J, Special Issue on Textured Surfaces, Vol. 229, N° 4, pp. 376-397.
- HENRY Y., BOUYER J., FILLON M.**, (2015) "An experimental analysis of the hydrodynamic contribution of textured thrust bearings during steady state operation - Comparison with the untextured parallel surface configuration." *Journal of Engineering Tribology*, Part J, Special Issue on Textured Surfaces, Vol. 229, N° 4, pp. 362-375.
- TALA IGHIL N., FILLON M.**, (2015) "A numerical investigation of both thermal and texturing surface effects on the journal bearings static characteristics." *Tribology International*, Vol. 90, pp. 228-239.
- FILLON M., WODTKE M., WASILCZUK M.**, (2015) "Effect of the presence of the lifting pocket on the THD performance of a large tilting-pad thrust bearing." *Friction*, Vol. 3, N° 4, pp. 266-274.
- BRITO F.P., MIRANDA A.S., FILLON M.**, (2016) "Analysis of the Effect of Grooves in Single and Twin Axial Groove Journal Bearings under Varying Load Direction." *Tribology International*, Vol. 103, November, pp. 609-619.
- CRISTEA A.F., BOUYER J., FILLON M., PASCOVICI M.D.**, (2017) "Transient pressure and temperature field measurements in a lightly loaded circumferential groove journal bearing from startup to steady-state stabilization." *STLE Tribology Transactions*, Vol. 0, N°0; pp. 1-23. *On line October 03, 2016*
