References

[1] Agrawal V K, Magnetic fluid based porous inclined slider bearing, *Wear* **107** 133-139 (1986).

[2] Ahmad N and Singh J P, Magnetic fluid lubrication of porous-pivoted slider bearing with slip velocity, *Journal of Engineering Tribology* **221** 609-613 (2007).

[3] Anderson J D, Computational fluid dynamics: The basic with applications, *McGraw Hill*, New York (1995).

[4] Bansal R K, A text book of fluid mechanics and hydraulic machines, *Laxmi Publications(P) Ltd.*, New Delhi (2010).

[5] Bashtovoi V G and Berkovskii B M, Thermomechanics of ferromagnetic fluids, *Magnitnaya Gidrodinamika* **3** 3-14 (1973).

[6] Bayada G, Benhaboucha N and Chambat M, New models in micropolar fluid and their application to lubrication, *Mathematical models and methods in application sciences* **15(3)** 343-374 (2005).

[7] Beavers G S and Joseph D D, Boundary conditions at a naturally permeable wall, *Journal of Fluid Mechanics* **30** 197-207 (1967).

[8] Bhat M V and Hingu J V, Squeeze films in curved porous circular plates, *Wear* **52** 193-196 (1979).

[9] Bhat M V and Patel K C, The effect of axial-current-induced pinch on the lubrication of rotating porous annular discs, *Wear* **50** 39-46 (1978).

[10] Bouzidane A and Thomas M, Nonlinear dynamic analysis of a rigid rotor supported by a three-pad hydrostatic squeeze film dampers, *Tribology Transactions* **56(5)** 717-727 (2013).

[11] Bujurke N M and Naduvinamani N B, Theoretical modelling of poro-elastic slider bearing lubricated by couple stress fluid with special reference to synovial joints, *Applied Mathematical Modelling* **15** 319-324 (1991).

[12] Cameron A, Basic Lubrication Theory, *Wiley Eastern Ltd*, New Delhi (1987).

[13] Capone E, Lubrication of axially undefined porous bearings, *Wear* **15** 157-170 (1970).

[14] Chandra P, Sinha P and Kumar D, Ferrofluid lubrication of a journal bearing considering cavitation, *Tribology Transactions* **35(1)** 163-169 (1992).

[15] Chang H S, Chi C Q and Zhao P Z, A theoretical and experimental study of ferrofluid lubricated four-pocket journal, *Journal of Magnetism and Magnetic Materials* **65** 372-374 (1987).

[16] Chao P C P and Huang J S, Calculating rotordynamic coefficients of a ferrofluid-lubricated and herringbone-grooved journal bearing via finite difference analysis, *Tribology Letters* **19(2)** 99-109 (2005).

[17] Chen S X, Zhang Q D, Chong H C, Komatsu T and Kang C H, Some design and prototyping issues on a 20000 rpm HDD spindle motor with a ferro-fluid bearing system, *IEEE Transaction on Magnetics* **37(2)** 805-809 (2001).

[18] Chi C Q, Wang Z S and Zhao P Z, Research on a new type of ferrofluid-lubricated journal bearing, *Journal of Magnetism and Magnetic Materials* **85** 257-260 (1990).

[19] Chorlton F, Textbook of Dynamics, *Ellis Horwood Ltd*., New York (1987).

[20] Chu H M, Li W L and Chen M D, Elastohydrodynamic lubrication of circular contacts at pure squeeze motion with non-Newtonian lubricants, *Tribology International* **38** 897-905 (2006).

[21] Davis R H, Serayssol J M and Hinch E J, The elastohydrodynamic collision of two spheres, *Journal of fluid Mechanics* **163** 479-497 (1986).

[22] Elsharkawy A A and Nassar M M, Hydrodynamic lubrication of squeeze-film porous bearings, *Acta Mechanica* **118** 121-134 (1996).

[23] Goldowsky M, New methods for sealing, filtering, and lubricating with magnetic fluids, *IEEE transactions on Magnetics Magazine* **16** 382-386 (1980).

[24] Guha S K, On the steady-state performance of hydrodynamic flexible journal bearings of finite width lubricated by ferrofluids with micro-polar effect, *International Journal of Mechanical Engineering and Robotics Research* **1(2)** 32-49 (2012).

[25] Gupta J L and Bhat M V, An inclined porous slider bearing with a transverse magnetic field, *Wear* **55** 359-367 (1979).

[26] Gupta J L and Sinha P C, Axial current induced pinch effect on squeeze film behavior for porous annular discs, *Journal of Lubrication Technology* **97(1)** 130-133 (1975).

[27] Hamrock B J, Fundamentals of fluid film lubrication, *McGraw Hill*, New York (1994).

[28] Hori Y, Hydrodynamics lubrication, *Springer*, New York (1994).

[29] Hsu T C, Chen J H, Chiang H L and Chou T L, Combined effect of magnetic field and surface roughness on long journal bearing lubricated with ferrofluid, *Journal of Marine Science and Technology* **22(2)** 154-162 (2014).

[30] Huang W, Shen C, Liao S and Wang X, Study on the ferrofluid lubrication with an external magnetic field, *Tribology Letters* **41** 145-151 (2011).

[31] Irmay S, Flow of liquid through cracked media, *Bulletin of the Research Council of Isreal* **5A(1)** 84 (1955).

[32] Jaffar M J, Squeeze films between a rigid cylinder and an elastic layer bounded to a rigid foundation, *Tribology International* **40** 567-572 (2007).

[33] Jain A K, Fluid mechanics: Including hydraulic mechanics, *Khanna Publishers*, New Delhi (2009).

[34] Jenkins J T, A Theory of magnetic fluids, *Archive for Rational Mechanics and Analysis* **46** 42-60 (1972).

[35] Kambe T, Elementary fluid mechanics, *World Scientific Publishing*, Singapore (2006).

[36] Kao Y Y, Chao P C, Liu Z B, Wang Z K, Liu P W, Huang J S and Chang C C, Performance prediction of a small-sized herringbone-grooved bearing with ferrofluid lubrication considering cavitation, *Journal of Applied Physics* **105** 07A334(1-3) (2009).

[37] Khonsari M M and Booser E R, Applied tribology: Bearing design and lubrication, *John Wiley and Sons Inc.*, New York (2001).

[38] Kulkarni S V and Kumar V, Lubrication equation for non-isotropic porous bearings considering slip velocity, *Journal of the Institution of Engineers (India): Mechanical Engineering Division* **56(3)** 110-112 (1975).

[39] Kuzhir P, Free boundary of lubricant film in ferrofluid journal bearings, *Tribology International* **41** 256-268 (2008).

[40] Lin J R, Derivation of ferrofluid lubrication equation of cylindrical squeeze films with convective fluid inertia forces and application to circular disks, *Tribology International* **49** 110-115 (2012).

[41] Lin J R, Lu R F and Yang C B, Derivation of porous squeeze film Reynolds equations using the Brinkman model and its application, *Journal of Physics D: Applied Physics* **34** 3217-3223 (2001).

[42] Liu J, Analysis of a porous elastic sheet damper with a magnetic fluid, *Journal of Tribology* **131** 0218011-0218015 (2009).

[43] Majumdar B C, Introduction to tribology of bearings, *Wheeler Publishing*, New Delhi (1986).

[44] Maugin G A, The principle of virtual power: Application to coupled field, *Acta Mechanicca* **35** 1-70 (1980).

[45] Mehta R V and Upadhyay R V, Science and technology of ferrofluids, *Current Science* **76(3)** 305-312 (1999).

[46] Mehta R V, Ferromagnetic fluids, *Journal of Scientific and Industrial Research* **44** 500-507 (1985).

[47] Mehta R V, Prabhakaran P and Patel H I, Thixotropy of certain of diester based magnetic fluids in a magnetic field, *Journal of Magnetism and Magnetic Materials* **39** 35-38 (1983).

[48] Meurisse M and Giudicelli B, A 3D conservative model for self lubricated porous journal bearings in a hydrodynamic steady state, *Journal of Tribology* **121** 529-537 (1999).

[49] Miszczak A and Frycz M, The program of experimental research regarding concentration of magnetic particles Fe_3O_4 in ferrofluid for slide journal bearing lubrication, *Journal of KONES Powertrain and Transport* **17(2)** 321-325 (2010).

[50] Miyake S and Takahashi, Sliding bearing lubricated with ferromagnetic fluid, *American Society of Lubrication Engineers Transactions* **28(4)** 461-466 (1984).

[51] Mohanty A K, Fluid mechanics, *Prentice Hall of India Pvt*., New Delhi (2004).

[52] Montazeri H, Numerical analysis of hydrodynamic journal bearings lubricated with ferrofluid, *IMechE*, *Part J: Journal of Engineering Tribology* **222 (1)** 51-60 (2008).

[53] Moore D F, A review of squeeze films, *Wear* **8** 245-263 (1965).

[54] Murti P R K, Squeeze-film behavior in porous circular discs, *Journal of Lubrication Technology*, Transactions of the ASME 96 206-209 (1974).

[55] Nabhani M, Khlifi M E and Bou-said B, Combined non-Newtonian and viscous shear effects on porous squeeze film behavior, *Tribology Transactions* **55(4)** 491-502 (2012).

[56] Nada G S and Osman T A, Static performance of finite hydrodynamic journal bearings lubricated by magnetic fluids with couple stresses, *Tribology Letters* **27** 261-268 (2007).

[57] Naduvinamani N B, Hiremath P S and Gurubasavaraj G, Effect of surface roughness on the couple-stress squeeze film between a sphere and a flat plate, *Tribology International* **38** 451-458 (2005).

[58] Nanduvinamani N B, Hirenath P S and Gurubasavaraj G, Squeeze film lubrication of short porous journal bearing with couple stress fluid, *Tribology International* **34(11)** 739-747 (2001).

[59] Ochoński W, Sliding bearings lubricated with magnetic fluids, *Industrial lubrication and Tribology* **59(6)** 252-265 (2007).

[60] Odenbach S, Colloidal magnetic fluids: Basics, Development and Application of Ferrofluids, *Springer*, Germany (2009).

[61] Osman T A, Nada G S and Safar Z S, Static and dynamic characteristics of magnetized journal bearings lubricated with ferrofluid, *Tribology International* **34** 369-380 (2001).

[62] Patel H C, Deheri G M and Patel R M, Magnetic fluid based squeeze film between porous elliptical plates, *MICHANIKA* **Nr. 1(63)** 34-37 (2007).

[63] Pinkus O and Sternlicht B, Theory of hydrodynamics lubrication, *McGraw Hill*, New York (1961).

[64] Popa N C, Potencz I, Brostean L and Vekas L, Some applications of inductive transducers with magnetic fluids, *Sensors and Actuators* A **59** 197-200 (1997).

[65] Potter M and Wiggert D C, Fluid mechanics, *McGraw Hill*, New York (2008).

[66] Prakash J and Tiwari K, Lubrication of porous bearing with surface corrugations, *Journal of Lubrication Technology* **104** 127-134 (1982).

[67] Prakash J and Vij S K, Hydrodynamic lubrication of a porous slider bearing, *Journal of Mechanical Engineering Science* **15** 232-234 (1973).

[68] Prakash J and Vij S. K, Squeeze films in porous metal bearings, *Journal of Lubrication Technology* **94** 302-305 (1972).

[69] Pursi A and Malik S K, Parametrically excited non-linear surface waves and chaos in magnetic fluids, *Journal of Magnetism and Magnetic Materials* **149** 132-136 (1995).

[70] Raj K and Moskowitz R, Commercial application of ferrofluids, *Journal of Magnetism and Magnetic Materials* **85** 233-245 (1990).

[71] Ram P and Verma P D S, Ferrofluid lubricated in porous inclined slider bearing, *Indian journal of Pure and Applied Mathematics* **30(12)** 1273-1281 (1999).

[72] Rao T V V L N, Rani A M A, Nagarajan T and Hashim F M, Analysis of journal bearing with double-layer porous lubricant film: Influence of surface porous layer configuration, *Tribology Transactions* **56(5)** 841-847 (2013).

[73] Rathakrishnan E, Fluid mechanics: An introduction, *Prentice Hall of India Pvt*., New Delhi (2007).

[74] Rosensweig R E, Ferrohydrodynamics, *Cambridge University Press*, New York (1985).

[75] Safar Z S, Centrifugal effects in misaligned hydrostatic thrust bearings, *Journal of Tribology* **105(4)** 621-624 (1983).

[76] Shah R C and Bhat M V, Analysis of a porous exponential slider bearing lubricated with a ferrofluid considering slip velocity, *Journal of the Brazilian Society of Mechanical Sciences and Engineering* **25** 264-267 (2003).

[77] Shah R C and Bhat M V, Anisotropic permeable porous facing and slip velocity on squeeze film in an axially undefined journal bearing with ferrofluid lubricant, *Journal of Magnetism and Magnetic Materials* **279** 224-230 (2004).

[78] Shah R C and Bhat M V, Combined effect of anisotropic permeability and slip velocity on porous walled squeeze films lubricated with a ferrofluid, *Journal of Friction and Wear* **24(1)** 58-64 (2003).

[79] Shah R C and Bhat M V, Effect of slip velocity in a porous secant-shaped slider bearing with a ferrofluid lubricant, *FIZIKA A-ZAGREB* **12(1)** 1-8 (2003).

[80] Shah R C and Bhat M V, Ferrofluid lubrication equation for porous bearing considering anisotropic permeability and slip velocity, *Indian Journal of Engineering & Material Sciences* **10** 277-281 (2003).

[81] Shah R C and Bhat M V, Ferrofluid lubrication in porous slider bearing with velocity slip, *International Journal of Mechanical Sciences* **44(12)** 2495-2502 (2002).

[82] Shah R C and Bhat M V, Ferrofluid lubrication of a porous slider bearing with a convex pad surface considering slip velocity, *International Journal of Applied Electromagnetics and Mechanics* **20** 1-9 (2004).

[83] Shah R C and Bhat M V, Ferrofluid squeeze film between curved annular plates including rotation of magnetic particles, *Journal of Engineering Mathematics* **51** 317-324 (2005).

[84] Shah R C and Bhat M V, Ferrofluid squeeze film in a long journal bearing, *Tribology International* **37** 441-446 (2004).

[85] Shah R C and Bhat M V, Magnetic fluid based porous inclined slider bearing with velocity slip, *International journal of Applied Mechanics and Engineering* **8** 331-336 (2003).

[86] Shah R C and Bhat M V, Magnetic fluid lubrication of bearing, each having a porous faced stator and a slider having various shapes, *Magnetohydrodynamics* **40(1)** 91-97 (2004).

[87] Shah R C and Bhat M V, Squeeze film based on magnetic fluid in curved porous rotating circular plates, *Journal of Magnetism and Magnetic Materials* **208** 115-119 (2000).

[88] Shah R C and Parsania M M, Comparative study of parallel plate slider bearing with other slider bearings using magnetic fluid as lubricant, *American Journal of Mathematics and Statistics* **3(4)** 179-189 (2013).

[89] Shah R C and Patel D B, Mathematical analysis of newly designed ferrofluid lubricated double porous layered axially undefined journal bearing with anisotrsopic permeability, slip velocity and squeeze velocity, *International Journal of Fluid Mechanics Research* **40(5)** 446-454 (2013).

[90] Shah R C and Patel D B, Mathematical modeling of newly designed ferrofluid based slider bearing including effects of porosity, anisotropic permeability, slip velocity at both the ends, and squeeze velocity, *Applied Mathematics* **2(5)** 176-183 (2012).

[91] Shah R C and Patel D B, Squeeze film based on ferrofluid in curved porous circular plates with various porous structure, *Applied Mathematics* **2(4)** 121-123 (2012).

[92] Shah R C, Effect of rotation on ferrofluid based squeeze film of various shapes between two annular plates, *International Journal of Applied Mechanics and Engineering* **12(2)** 515-525 (2007).

[93] Shah R C, Tripathi S R and Bhat M V, Magnetic fluid based squeeze film between porous annular curved plates with the effect of rotational inertia, *Pramana Journal of Physics* **58(3)** 545-550 (2002).

[94] Singh U P and Gupta R S, Dynamic performance characteristics of a curved slider bearing operating with ferrofluids, *Advances in Tribology*, Article ID **278723** 6 pages (2012).

[95] Sinha P, Chandra P and Kumar D, Ferrofluid lubrication of cylindrical rollers with cavitation, *Acta Mechanica* **98** 27-38 (1993).

[96] Sparrow E M, Beavers G S and Hwang I T, Effect of velocity slip on porous walled squeeze films, *Journal of Lubrication Technology* **94** 260-265 (1972).

[97] Ting L L, A mathematical analog for determination of porous annular discs squeeze film behavior including the fluid inertia effect, *Journal of Basic Engineering* **94(2)** 417-421 (1972).

[98] Tipei N, Theory of lubrication with ferrofluids: Application to short bearings, *Transactions of ASME* **104** 510-515 (1982).

[99] Uhlmann E, Spur G, Bayat N and Patzwald R, Application of magnetic fluids in tribotechnical systems, *Journal of Magnetism and Magnetic Materials* **252** 336–340 (2002).

[100] Urreta H, Leicht Z, Sanchez A, Agirre A, Kuzhir P and Magnac G, Hydrodynamic bearing lubricated with magnetic fluids, *Journal of Physics*: Conference Series **149** 012113 (2009).

[101] Vaidyanathan G, Sekar R and Ramanathan A, Ferro thermohaline convection in a porous medium, *Journal of Magnetism and Magnetic Materials* **149** 137-142 (1995).

[102] Verma P D S, Double layer porous journal bearing analysis, *Mechanics of Materials* **2** 233-238 (1983).

[103] Verma P D S, Magnetic fluid-based squeeze film, *International Journal of Engineering Science* **24(3)** 395-401 (1986).

[104] Vijyakumari G, Engineering physics, *Vikas Publisher,* India (2013).

[105] Walker J S and Buckmaster J D, Ferrohydrodynamic thrust bearings, *International Journal of Engineering Science* **17** 1171-1182 (1979).

[106] Wilcock D F and Booser E R, Bearing design and application, *McGraw Hill*, New York (1957).

[107] Wu H, A review of porous squeeze films, *Wear* **47** 371-385 (1978).

[108] Wu H, Squeeze-film behavior for porous annular disks, *Journal of Lubrication Technology*, Transaction of the ASME, Series F **92(4)** 593-596 (1970).

[109] Wu H, The squeeze film between rotating porous annular discs, *Wear* **18** 461-470 (1971).

[110] Yang J, Chen S, Zhang Q and Liu Z, Transient dynamic analysis of ferro-fluid bearing spindle motor, *Microsystem Technologies* **8** 282-288 (2002).