Xianghui Meng

List of Publications by Year
in descending order

76 papers	1,257 citations	361413 20 h-index	477307 29 g-index
78 all docs	78 docs citations	78 times ranked	443 citing authors

#	Article	IF	Citations
1	Effects of surface texturing on ring/liner friction under starved lubrication. Tribology International, 2016, 94, 591-605.	5.9	96
2	A thermal mixed lubrication model to study the textured ring/liner conjunction. Tribology International, 2016, 101, 178-193.	5.9	54
3	Mixed lubrication problems in the presence of textures: An efficient solution to the cavitation problem with consideration of roughness effects. Tribology International, 2016, 103, 516-528.	5.9	47
4	A new numerical analysis for piston skirtâ€“liner system lubrication considering the effects of connecting rod inertia. Tribology International, 2012, 47, 235-243.	5.9	44
5	Dynamic behaviors of angular contact ball bearing with a localized surface defect considering the influence of cage and oil lubrication. Mechanism and Machine Theory, 2021, 162, 104352.	4.5	40
6	On the module identification for product family development. International Journal of Advanced Manufacturing Technology, 2007, 35, 26-40.	3.0	33
7	A piston tribodynamic model with deterministic consideration of skirt surface grooves. Tribology International, 2017, 110, 232-251.	5.9	33
8	Performance of Surface Texturing During Start-Up Under Starved and Mixed Lubrication. Journal of Tribology, 2017, 139, .	1.9	33
9	Transient tribo-dynamics analysis and friction loss evaluation of piston during cold- and warm-start of a SI engine. International Journal of Mechanical Sciences, 2017, 133, 767-787.	6.7	33
10	Modeling a lubricated full-floating pin bearing in planar multibody systems. Tribology International, 2019, 131, 222-237.	5.9	33
11	A two-dimensional starved lubrication analysis method for textured surfaces. International Journal of Engine Research, 2016, 17, 1062-1076.	2.3	31
12	A study on the tribological behavior of surface texturing on the nonflat piston ring under mixed lubrication. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2016, 230, 452-471.	1.8	30
13	Elasto-plastic contact of rough surfaces: a mixed-lubrication model for the textured surface analysis. Meccanica, 2017, 52, 1541-1559.	2.0	29
14	A new efficient flow continuity lubrication model for the piston ring-pack with consideration of oil storage of the cross-hatched texture. Tribology International, 2018, 119, 443-463.	5.9	29
15	An improved technique for measuring piston-assembly friction and comparative analysis with numerical simulations: Under motored condition. Mechanical Systems and Signal Processing, 2019, 115, 657-676.	8.0	29
16	The influence of surface texturing on the transition of the lubrication regimes between a piston ring and a cylinder liner. International Journal of Engine Research, 2017, 18, 785-796.	2.3	25
17	Effects of the connecting-rod-related design parameters on the piston dynamics and the skirtâ€“liner lubrication. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2013, 227, 885-898.	1.9	23
18	Transient tribodynamic model of piston skirt-liner systems with variable speed effects. Tribology International, 2016, 94, 640-651.	5.9	23

#	Article	IF	Citations
19	Analysis of the coated and textured ring/liner conjunction based on a thermal mixed lubrication model. Friction, 2018, 6, 420-431.	6.4	23
20	Mixed elastohydrodynamic analysis of a coupled journal-thrust bearing system in a rotary compressor under high ambient pressure. Tribology International, 2021, 159, 106943.	5.9	23
21	On the oil-gas-solid mixed bearing between compression ring and cylinder liner under starved lubrication and high boundary pressures. Tribology International, 2019, 140, 105869.	5.9	22
22	Modeling the wear process of the ring/liner conjunction considering the evaluation of asperity height distribution. Tribology International, 2017, 112, 20-32.	5.9	21
23	Research on Mixed Lubrication Problems of the Non-Gaussian Rough Textured Surface With the Influence of Stochastic Roughness in Consideration. Journal of Tribology, 2019, 141, .	1.9	21
24	Modeling of the cylinder liner â€œzero-wearâ€•process by two-scale homogenization technique. Wear, 2016, 368-369, 408-422.	3.1	19
25	Transient tribodynamic analysis of crankshaft-main bearing system during engines starting up. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2018, 232, 535-549.	1.8	18
26	Incorporation of deformation in a lubrication analysis for automotive piston skirtâ€“liner system. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2013, 227, 654-670.	1.8	17
27	A computationally efficient mass-conservation-based, two-scale approach to modeling cylinder liner topography changes during running-in. Wear, 2017, 386-387, 139-156.	3.1	17
28	Transient Analysis of the Textured Journal Bearing Operating With the Piezoviscous and Shear-Thinning Fluids. Journal of Tribology, 2017, 139, .	1.9	16
29	Mutual influence of plateau roughness and groove texture of honed surface on frictional performance of piston ringâ€“liner system. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 838-859.	1.8	16
30	A new coupling tribodynamic model of crosshead slipper-guide system and piston skirt-liner system of low-speed marine diesel engines. Tribology International, 2018, 117, 189-205.	5.9	16
31	A deterministic contact evolution and scuffing failure analysis considering lubrication deterioration due to temperature rise under heavy loads. Engineering Failure Analysis, 2021, 123, 105276.	4.0	16
32	Effects of lubricant shear thinning on the mixed lubrication of piston skirt-liner system. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2013, 227, 1585-1598.	2.1	15
33	A transient analysis of the textured journal bearing considering micro and macro cavitation during an engine cycle. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 1289-1306.	1.8	15
34	A tribological analysis on stuffing box-piston rod system of low-speed marine diesel engines. International Journal of Engine Research, 2019, 20, 911-930.	2.3	15
35	A new comprehensive tribo-dynamic analysis for lubricated translational joints in low-speed two-stroke marine engines. International Journal of Engine Research, 2020, 21, 1336-1361.	2.3	15
36	Study on the mutual influence of surface roughness and texture features of rough-textured surfaces on the tribological properties. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 256-273.	1.8	15

#	Article	IF	Citations
37	Modeling a Hydrodynamic Bearing With Provision for Misalignments and Textures. Journal of Tribology, 2020, 142, .	1.9	15
38	Blow-by and tribological performance of piston ring pack during cold start and warm idle operations. Science China Technological Sciences, 2016, 59, 1085-1099.	4.0	14
39	On the tribo-dynamic interactions between piston skirt-liner system and pin assembly in a gasoline engine. Mechanism and Machine Theory, 2021, 166, 104497.	4.5	14
40	Measurement of the friction force of sliding friction pairs in low-speed marine diesel engines and comparison with numerical simulation. Applied Ocean Research, 2022, 121, 103089.	4.1	14
41	Influence of numerous start-ups and stops on tribological performance evolution of engine main bearings. International Journal of Engine Research, 2020, 21, 1362-1380.	2.3	13
42	A deterministic FE contact analysis of 3D rough surfaces with textures and comparison with classic statistical contact models. Science China Technological Sciences, 2021, 64, 297-316.	4.0	13
43	Numerical simulation of the effects of coating on thermal elastohydrodynamic lubrication in cam/tappet contact. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 221-239.	1.8	11
44	Transient tribo-dynamic analysis of crosshead slipper in low-speed marine diesel engines during engine startup. Friction, 2021, 9, 1504-1527.	6.4	11
45	Rough surface damping contact model and its space mechanism application. International Journal of Mechanical Sciences, 2022, 214, 106899.	6.7	11
46	On the running-in behavior of rough surface of piston rings in mixed lubrication regime. Industrial Lubrication and Tribology, 2015, 67, 468-485.	1.3	10
47	Optimizing the shape of top piston ring face using inverse method. Industrial Lubrication and Tribology, 2016, 68, 9-15.	1.3	10
48	Influence of angular misalignment on the tribological performance of high-speed micro ball bearings considering full multibody interactions. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 1168-1189.	1.8	10
49	A comprehensive experimental study on tribological performance of piston ringâ€“cylinder liner pair. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2022, 236, 184-204.	1.8	10
50	Online measurement of piston-assembly friction with wireless IMEP method under fired conditions and comparison with numerical analysis. Measurement: Journal of the International Measurement Confederation, 2021, 174, 109009.	5.0	10
51	An investigation of high and room temperature fretting fatigue of DD6-FGH96 dovetail joint in aero-engine: Experimental and numerical analysis. International Journal of Fatigue, 2022, 154, 106537.	5.7	10
52	Tribological behavior anisotropy in sliding interaction of asperities on single-crystal Î±-iron: A quasi-continuum study. Tribology International, 2018, 118, 347-359.	5.9	9
53	Study on the frictional performance of slide and plateau honed cylinder liners during running-in. Industrial Lubrication and Tribology, 2017, 69, 282-299.	1.3	8
54	A Comprehensive Numerical Study on Friction Reduction and Wear Resistance by Surface Coating on Cam/Tappet Pairs under Different Conditions. Coatings, 2020, 10, 485.	2.6	7

#	Article	IF	Citations
55	Crosshead bearing analysis for low-speed marine diesel engines based on a multi-body tribo-dynamic model. International Journal of Engine Research, 2021, 22, 2442-2463.	2.3	7
56	A Boundary Lubrication Model and Experimental Study Considering ZDDP Tribofilms on Reciprocating Friction Pairs. Tribology Letters, 2022, 70, 1.	2.6	7
57	Thermal insulation effect on EHL of coated cam/tappet contact during start up. Industrial Lubrication and Tribology, 2018, 70, 917-926.	1.3	6
58	On the Stiffness and Damping Characteristics of Line Contacts under Transient Elastohydrodynamic Lubrication. Lubricants, 2022, 10, 73.	2.9	6
59	Embedded knowledge service in mechanical product development. International Journal of Advanced Manufacturing Technology, 2011, 53, 669-679.	3.0	5
60	Starved lubrication analysis for the top ring and cylinder liner of a two-stroke marine diesel engine considering the thermal effect of friction. International Journal of Engine Research, 2023, 24, 336-359.	2.3	5
61	Numerical analysis of vaneâ€“slot friction pair in a rolling piston compressor considering deformation and groove design. Tribology International, 2021, 162, 107124.	5.9	5
62	Quasicontinuum investigation of the feedback effects on friction behavior of an abrasive particle over a single crystal aluminum substrate. Tribology International, 2016, 98, 48-58.	5.9	4
63	A Universal Model for Both Flooded and Starved Lubrication Regimes and Its Application in Ringâ€“Liner System. Tribology Transactions, 2017, 60, 506-515.	2.0	4
64	Numerical analysis of textured piston compression ring conjunction using two-dimensional-computational fluid dynamics and Reynolds methods. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2018, 232, 1467-1485.	1.8	4
65	Texture Optimization and Verification for the Thrust Bearing Used in Rotary Compressors Based on a Transient Tribo-Dynamics Model. Journal of Tribology, 2022, 144, .	1.9	4
66	Study on the Three-Dimensional Tribo-Dynamic Analysis of Piston Ring Pack Considering the Influence of Piston Secondary Motion. Journal of Tribology, 2022, 144, .	1.9	4
67	Tribo-dynamic analysis and motion control of a rotating manipulator based on the load and temperature dependent friction model. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 1335-1352.	1.8	3
68	Methodology of Designing for Time-varying Performance of Complex Products. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2010, 46, 128.	0.5	3
69	Design Decomposition for Cross-organizational Assignment of Design Tasks. Concurrent Engineering Research and Applications, 2010, 18, 111-119.	3.2	2
70	Numerical Study on Fretting Wear of Mating Surface Between Piston Crown and Skirt in Heavy Duty Diesel Engine. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	2
71	Numerical Study of Piston Skirt-Liner Elastohydrodynamic Lubrication and Contact by the Multigrid Method. , 2010, , .		1
72	Time-varying performance prediction and system identification of internal combustion engines. Journal of Shanghai Jiaotong University (Science), 2009, 14, 701-706.	0.9	0

#	Article	IF	Citations
73	An Inventory Management Model in Mobile Commerce. , 2010, , .		0
74	Numerical Study of Piston Skirt-Liner Lubrication Considering the Effects of Deformation in Internal Combustion Engines. , 2012, , .		0
75	Experimental Investigate of the Wear and Friction Performance Considering Effects of Surface Topography and Lubricant. Lecture Notes in Mechanical Engineering, 2019, , 615-620.	0.4	0
76	Study on the moving crossâ€hatched textures under starved lubrication based on parallel calculation. Lubrication Science, 0, , .	2.1	0