

Xianghui Meng

List of Publications by Year in descending order

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76
papers

1,257
citations

361045

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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.	3.0	96
2	A thermal mixed lubrication model to study the textured ring/liner conjunction. Tribology International, 2016, 101, 178-193.	3.0	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.	3.0	47
4	A new numerical analysis for piston skirt-€ liner system lubrication considering the effects of connecting rod inertia. Tribology International, 2012, 47, 235-243.	3.0	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.	2.7	40
6	On the module identification for product family development. International Journal of Advanced Manufacturing Technology, 2007, 35, 26-40.	1.5	33
7	A piston tribodynamic model with deterministic consideration of skirt surface grooves. Tribology International, 2017, 110, 232-251.	3.0	33
8	Performance of Surface Texturing During Start-Up Under Starved and Mixed Lubrication. Journal of Tribology, 2017, 139, .	1.0	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.	3.6	33
10	Modeling a lubricated full-floating pin bearing in planar multibody systems. Tribology International, 2019, 131, 222-237.	3.0	33
11	A two-dimensional starved lubrication analysis method for textured surfaces. International Journal of Engine Research, 2016, 17, 1062-1076.	1.4	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.	1.0	30
13	Elasto-plastic contact of rough surfaces: a mixed-lubrication model for the textured surface analysis. Meccanica, 2017, 52, 1541-1559.	1.2	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.	3.0	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.	4.4	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.	1.4	25
17	Effects of the connecting-rod-related design parameters on the piston dynamics and the skirt-€ liner lubrication. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2013, 227, 885-898.	1.1	23
18	Transient tribodynamic model of piston skirt-liner systems with variable speed effects. Tribology International, 2016, 94, 640-651.	3.0	23

#	ARTICLE	IF	CITATIONS
19	Analysis of the coated and textured ring/liner conjunction based on a thermal mixed lubrication model. <i>Friction</i> , 2018, 6, 420-431.	3.4	23
20	Mixed elasto-hydrodynamic analysis of a coupled journal-thrust bearing system in a rotary compressor under high ambient pressure. <i>Tribology International</i> , 2021, 159, 106943.	3.0	23
21	On the oil-gas-solid mixed bearing between compression ring and cylinder liner under starved lubrication and high boundary pressures. <i>Tribology International</i> , 2019, 140, 105869.	3.0	22
22	Modeling the wear process of the ring/liner conjunction considering the evaluation of asperity height distribution. <i>Tribology International</i> , 2017, 112, 20-32.	3.0	21
23	Research on Mixed Lubrication Problems of the Non-Gaussian Rough Textured Surface With the Influence of Stochastic Roughness in Consideration. <i>Journal of Tribology</i> , 2019, 141, .	1.0	21
24	Modeling of the cylinder liner "zero-wear" process by two-scale homogenization technique. <i>Wear</i> , 2016, 368-369, 408-422.	1.5	19
25	Transient tribodynamic analysis of crankshaft-main bearing system during engines starting up. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2018, 232, 535-549.	1.0	18
26	Incorporation of deformation in a lubrication analysis for automotive piston skirt- liner system. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2013, 227, 654-670.	1.0	17
27	A computationally efficient mass-conservation-based, two-scale approach to modeling cylinder liner topography changes during running-in. <i>Wear</i> , 2017, 386-387, 139-156.	1.5	17
28	Transient Analysis of the Textured Journal Bearing Operating With the Piezoviscous and Shear-Thinning Fluids. <i>Journal of Tribology</i> , 2017, 139, .	1.0	16
29	Mutual influence of plateau roughness and groove texture of honed surface on frictional performance of piston ring- liner system. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2017, 231, 838-859.	1.0	16
30	A new coupling tribodynamic model of crosshead slipper-guide system and piston skirt-liner system of low-speed marine diesel engines. <i>Tribology International</i> , 2018, 117, 189-205.	3.0	16
31	A deterministic contact evolution and scuffing failure analysis considering lubrication deterioration due to temperature rise under heavy loads. <i>Engineering Failure Analysis</i> , 2021, 123, 105276.	1.8	16
32	Effects of lubricant shear thinning on the mixed lubrication of piston skirt-liner system. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2013, 227, 1585-1598.	1.1	15
33	A transient analysis of the textured journal bearing considering micro and macro cavitation during an engine cycle. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2017, 231, 1289-1306.	1.0	15
34	A tribological analysis on stuffing box-piston rod system of low-speed marine diesel engines. <i>International Journal of Engine Research</i> , 2019, 20, 911-930.	1.4	15
35	A new comprehensive tribo-dynamic analysis for lubricated translational joints in low-speed two-stroke marine engines. <i>International Journal of Engine Research</i> , 2020, 21, 1336-1361.	1.4	15
36	Study on the mutual influence of surface roughness and texture features of rough-textured surfaces on the tribological properties. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2021, 235, 256-273.	1.0	15

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37	Modeling a Hydrodynamic Bearing With Provision for Misalignments and Textures. <i>Journal of Tribology</i> , 2020, 142, .	1.0	15
38	Blow-by and tribological performance of piston ring pack during cold start and warm idle operations. <i>Science China Technological Sciences</i> , 2016, 59, 1085-1099.	2.0	14
39	On the tribo-dynamic interactions between piston skirt-liner system and pin assembly in a gasoline engine. <i>Mechanism and Machine Theory</i> , 2021, 166, 104497.	2.7	14
40	Measurement of the friction force of sliding friction pairs in low-speed marine diesel engines and comparison with numerical simulation. <i>Applied Ocean Research</i> , 2022, 121, 103089.	1.8	14
41	Influence of numerous start-ups and stops on tribological performance evolution of engine main bearings. <i>International Journal of Engine Research</i> , 2020, 21, 1362-1380.	1.4	13
42	A deterministic FE contact analysis of 3D rough surfaces with textures and comparison with classic statistical contact models. <i>Science China Technological Sciences</i> , 2021, 64, 297-316.	2.0	13
43	Numerical simulation of the effects of coating on thermal elasto-hydrodynamic lubrication in cam/tappet contact. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2017, 231, 221-239.	1.0	11
44	Transient tribo-dynamic analysis of crosshead slipper in low-speed marine diesel engines during engine startup. <i>Friction</i> , 2021, 9, 1504-1527.	3.4	11
45	Rough surface damping contact model and its space mechanism application. <i>International Journal of Mechanical Sciences</i> , 2022, 214, 106899.	3.6	11
46	On the running-in behavior of rough surface of piston rings in mixed lubrication regime. <i>Industrial Lubrication and Tribology</i> , 2015, 67, 468-485.	0.6	10
47	Optimizing the shape of top piston ring face using inverse method. <i>Industrial Lubrication and Tribology</i> , 2016, 68, 9-15.	0.6	10
48	Influence of angular misalignment on the tribological performance of high-speed micro ball bearings considering full multibody interactions. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2021, 235, 1168-1189.	1.0	10
49	A comprehensive experimental study on tribological performance of piston ring-cylinder liner pair. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2022, 236, 184-204.	1.0	10
50	Online measurement of piston-assembly friction with wireless IMEP method under fired conditions and comparison with numerical analysis. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 174, 109009.	2.5	10
51	An investigation of high and room temperature fretting fatigue of DD6-FGH96 dovetail joint in aero-engine: Experimental and numerical analysis. <i>International Journal of Fatigue</i> , 2022, 154, 106537.	2.8	10
52	Tribological behavior anisotropy in sliding interaction of asperities on single-crystal $\hat{\Gamma}$ -iron: A quasi-continuum study. <i>Tribology International</i> , 2018, 118, 347-359.	3.0	9
53	Study on the frictional performance of slide and plateau honed cylinder liners during running-in. <i>Industrial Lubrication and Tribology</i> , 2017, 69, 282-299.	0.6	8
54	A Comprehensive Numerical Study on Friction Reduction and Wear Resistance by Surface Coating on Cam/Tappet Pairs under Different Conditions. <i>Coatings</i> , 2020, 10, 485.	1.2	7

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55	Crosshead bearing analysis for low-speed marine diesel engines based on a multi-body tribo-dynamic model. <i>International Journal of Engine Research</i> , 2021, 22, 2442-2463.	1.4	7
56	A Boundary Lubrication Model and Experimental Study Considering ZDDP Tribofilms on Reciprocating Friction Pairs. <i>Tribology Letters</i> , 2022, 70, 1.	1.2	7
57	Thermal insulation effect on EHL of coated cam/tappet contact during start up. <i>Industrial Lubrication and Tribology</i> , 2018, 70, 917-926.	0.6	6
58	On the Stiffness and Damping Characteristics of Line Contacts under Transient Elastohydrodynamic Lubrication. <i>Lubricants</i> , 2022, 10, 73.	1.2	6
59	Embedded knowledge service in mechanical product development. <i>International Journal of Advanced Manufacturing Technology</i> , 2011, 53, 669-679.	1.5	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. <i>International Journal of Engine Research</i> , 2023, 24, 336-359.	1.4	5
61	Numerical analysis of vane-slot friction pair in a rolling piston compressor considering deformation and groove design. <i>Tribology International</i> , 2021, 162, 107124.	3.0	5
62	Quasicontinuum investigation of the feedback effects on friction behavior of an abrasive particle over a single crystal aluminum substrate. <i>Tribology International</i> , 2016, 98, 48-58.	3.0	4
63	A Universal Model for Both Flooded and Starved Lubrication Regimes and Its Application in Ring-Liner System. <i>Tribology Transactions</i> , 2017, 60, 506-515.	1.1	4
64	Numerical analysis of textured piston compression ring conjunction using two-dimensional-computational fluid dynamics and Reynolds methods. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2018, 232, 1467-1485.	1.0	4
65	Texture Optimization and Verification for the Thrust Bearing Used in Rotary Compressors Based on a Transient Tribo-Dynamics Model. <i>Journal of Tribology</i> , 2022, 144, .	1.0	4
66	Study on the Three-Dimensional Tribo-Dynamic Analysis of Piston Ring Pack Considering the Influence of Piston Secondary Motion. <i>Journal of Tribology</i> , 2022, 144, .	1.0	4
67	Tribo-dynamic analysis and motion control of a rotating manipulator based on the load and temperature dependent friction model. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2021, 235, 1335-1352.	1.0	3
68	Methodology of Designing for Time-varying Performance of Complex Products. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , 2010, 46, 128.	0.7	3
69	Design Decomposition for Cross-organizational Assignment of Design Tasks. <i>Concurrent Engineering Research and Applications</i> , 2010, 18, 111-119.	2.0	2
70	Numerical Study on Fretting Wear of Mating Surface Between Piston Crown and Skirt in Heavy Duty Diesel Engine. <i>Journal of Engineering for Gas Turbines and Power</i> , 2019, 141, .	0.5	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. <i>Journal of Shanghai Jiaotong University (Science)</i> , 2009, 14, 701-706.	0.5	0

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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.	0.3	0
76	Study on the moving cross-hatched textures under starved lubrication based on parallel calculation. Lubrication Science, 0, , .	0.9	0