

Ramin Rahmani

List of Publications by Year in descending order

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74
papers

1,800
citations

236612

25
h-index

301761

39
g-index

75
all docs

75
docs citations

75
times ranked

831
citing authors

#	ARTICLE	IF	CITATIONS
1	Tribology of piston compression ring conjunction under transient thermal mixed regime of lubrication. Tribology International, 2013, 59, 248-258.	3.0	133
2	An analytical approach for analysis and optimisation of slider bearings with infinite width parallel textures. Tribology International, 2010, 43, 1551-1565.	3.0	111
3	Optimization of Partially Textured Parallel Thrust Bearings with Square-Shaped Micro-Dimples. Tribology Transactions, 2007, 50, 401-406.	1.1	97
4	The effect of cylinder liner operating temperature on frictional loss and engine emissions in piston ring conjunction. Applied Energy, 2017, 191, 568-581.	5.1	87
5	In-cycle and life-time friction transience in piston ring-cylinder liner conjunction under mixed regime of lubrication. International Journal of Engine Research, 2014, 15, 862-876.	1.4	85
6	Transient elastohydrodynamic lubrication of rough new or worn piston compression ring conjunction with an out-of-round cylinder bore. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2012, 226, 284-305.	1.0	79
7	Combined numerical and experimental investigation of the micro-hydrodynamics of chevron-based textured patterns influencing conjunctional friction of sliding contacts. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2015, 229, 316-335.	1.0	67
8	Thermo-Mixed Hydrodynamics of Piston Compression Ring Conjunction. Tribology Letters, 2013, 51, 323-340.	1.2	58
9	On the boundary conditions in multi-phase flow through the piston ring-cylinder liner conjunction. Tribology International, 2015, 90, 164-174.	3.0	56
10	The influence of piston ring geometry and topography on friction. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2013, 227, 141-153.	1.0	51
11	A Numerical Model to Study the Role of Surface Textures at Top Dead Center Reversal in the Piston Ring to Cylinder Liner Contact. Journal of Tribology, 2016, 138, .	1.0	44
12	Enhanced performance of optimised partially textured load bearing surfaces. Tribology International, 2018, 117, 272-282.	3.0	40
13	Boundary interactions of rough non-Gaussian surfaces. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2016, 230, 1359-1370.	1.0	38
14	On the Transient Three-Dimensional Tribodynamics of Internal Combustion Engine Top Compression Ring. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	0.5	38
15	Effect of cylinder deactivation on tribological performance of piston compression ring and connecting rod bearing. Tribology International, 2018, 120, 243-254.	3.0	35
16	Analytical analysis and optimisation of the Rayleigh step slider bearing. Tribology International, 2009, 42, 666-674.	3.0	32
17	Big End Bearing Losses with Thermal Cavitation Flow Under Cylinder Deactivation. Tribology Letters, 2015, 57, 1.	1.2	32
18	An assessment of gas power leakage and frictional losses from the top compression ring of internal combustion engines. Tribology International, 2020, 142, 105991.	3.0	32

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19	Thermohydrodynamics of lubricant flow with carbon nanoparticles in tribological contacts. Tribology International, 2017, 113, 50-57.	3.0	31
20	Influence of advanced cylinder coatings on vehicular fuel economy and emissions in piston compression ring conjunction. Applied Energy, 2020, 259, 114129.	5.1	30
21	Combined experimental and multiphase computational fluid dynamics analysis of surface textured journal bearings in mixed regime of lubrication. Lubrication Science, 2018, 30, 161-173.	0.9	29
22	Surface-specific flow factors for prediction of friction of cross-hatched surfaces. Surface Topography: Metrology and Properties, 2016, 4, 025002.	0.9	28
23	Assessment of friction from compression ring conjunction of a high-performance internal combustion engine: A combined numerical and experimental study. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 2073-2085.	1.1	28
24	Asperity level tribological investigation of automotive bore material and coatings. Tribology International, 2018, 117, 131-140.	3.0	27
25	Surface specific asperity model for prediction of friction in boundary and mixed regimes of lubrication. Meccanica, 2017, 52, 21-33.	1.2	26
26	Thermal conductivity and molecular heat transport of nanofluids. RSC Advances, 2019, 9, 2516-2524.	1.7	25
27	Heat generation and transfer in automotive dry clutch engagement. Journal of Zhejiang University: Science A, 2018, 19, 175-188.	1.3	24
28	A combined analytical–experimental investigation of friction in cylinder liner inserts under mixed and boundary regimes of lubrication. Lubrication Science, 2017, 29, 293-316.	0.9	22
29	An Analytical Approach for Prediction of Elastohydrodynamic Friction with Inlet Shear Heating and Starvation. Tribology Letters, 2016, 64, 1.	1.2	21
30	Thermohydrodynamics of bidirectional groove dry gas seals with slip flow. International Journal of Thermal Sciences, 2016, 110, 270-284.	2.6	21
31	Effect of clutch lining frictional characteristics on take-up judder. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2017, 231, 493-503.	0.5	21
32	Inefficiency predictions in a hypoid gear pair through tribodynamics analysis. Tribology International, 2018, 119, 631-644.	3.0	21
33	Nano and microscale contact characteristics of tribofilms derived from fully formulated engine oil. Tribology International, 2019, 131, 620-630.	3.0	19
34	Combined lubricant–surface system perspective: Multi-scale numerical–experimental investigation. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 910-924.	1.0	18
35	Optimised textured surfaces with application in piston ring/cylinder liner contact. , 2010, , 470-517.		16
36	Optimisation of the piston compression ring for improved energy efficiency of high performance race engines. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2017, 231, 1806-1817.	1.1	16

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37	Performance Evaluation of Bidirectional Dry Gas Seals with Special Groove Geometry. Tribology Transactions, 2017, 60, 58-69.	1.1	15
38	Effect of cylinder de-activation on the tribological performance of compression ring conjunction. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 997-1006.	1.0	15
39	On the Effect of Transient In-Plane Dynamics of the Compression Ring Upon Its Tribological Performance. Journal of Engineering for Gas Turbines and Power, 2015, 137, .	0.5	14
40	Effect of Shaft Surface Roughness on the Performance of Radial Lip Seals. Lubricants, 2018, 6, 99.	1.2	14
41	Nanoscale frictional characterisation of base and fully formulated lubricants based on activation energy components. Tribology International, 2020, 144, 106115.	3.0	14
42	Effect of cylinder deactivation on the tribo-dynamics and acoustic emission of overlay big end bearings. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2014, 228, 138-151.	0.5	13
43	Assessing the Increase in Specific Surface Area for Electrospun Fibrous Network due to Pore Induction. ACS Applied Materials & Interfaces, 2016, 8, 29148-29154.	4.0	13
44	Multiscale boundary frictional performance of diamond like carbon coatings. Tribology International, 2020, 149, 105539.	3.0	13
45	The effect of outer ring elastodynamics on vibration and power loss of radial ball bearings. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2020, 234, 707-722.	0.5	13
46	Lubricated Loaded Tooth Contact Analysis and Non-Newtonian Thermoelastohydrodynamics of High-Performance Spur Gear Transmission Systems. Lubricants, 2020, 8, 20.	1.2	13
47	Integrated Thermal and Dynamic Analysis of Dry Automotive Clutch Linings. Applied Sciences (Switzerland), 2019, 9, 4287.	1.3	11
48	Performance of Poly Alpha Olefin Nanolubricant. Lubricants, 2020, 8, 17.	1.2	11
49	Effect of Compression Ring Elastodynamics Behaviour upon Blowby and Power Loss. , 0, , .		10
50	Cavitating Flow in Engine Piston Ring-Cylinder Liner Conjunction. , 2013, , .		9
51	Non-Newtonian Thermo-Elastohydrodynamics and Sub-Surface Stress Field of High-Performance Racing Spur Gears. Lubricants, 2022, 10, 146.	1.2	9
52	Analytical Evaluation of Fitted Piston Compression Ring: Modal Behaviour and Frictional Assessment. , 0, , .		8
53	A hydrodynamic flow analysis for optimal positioning of surface textures. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2017, 231, 1140-1150.	1.0	8
54	Combined Analytical and Experimental Evaluation of Frictional Performance of Lubricated Untextured and Partially Textured Sliders. Lubricants, 2018, 6, 88.	1.2	8

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55	Multiscale Friction in Lubricant-Surface Systems for High-Performance Transmissions Under Mild Wear. Tribology Letters, 2018, 66, 77.	1.2	7
56	Tribodynamics of hydraulic actuated clutch system for engine-downsizing in heavy duty off-highway vehicles. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 976-993.	1.1	7
57	Transient Analysis of Isothermal Elastohydrodynamic Point Contacts under Complex Kinematics of Combined Rolling, Spinning and Normal Approach. Lubricants, 2020, 8, 81.	1.2	7
58	Energy loss and emissions of engine compression rings with cylinder deactivation. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2021, 235, 1930-1943.	1.1	6
59	The Effect of Cylinder De-Activation on Thermo-Friction Characteristics of the Connecting Rod Bearing in the New European Drive Cycle (NEDC). , 2014, , .		4
60	Assessment of Friction for Cam-Roller Follower Valve Train System Subjected to Mixed Non-Newtonian Regime of Lubrication. , 2012, , .		3
61	Coupled elastodynamics of piston compression ring subject to sweep excitation. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2017, 231, 469-479.	0.5	3
62	Effect of Dispersant Concentration With Friction Modifiers and Anti-Wear Additives on the Tribofilm Composition and Boundary Friction. Journal of Tribology, 2021, 143, .	1.0	3
63	Performance Evaluation of Piston Compression Ring Through Accelerated Wear in Engine Tests. , 2012, , .		2
64	Prediction of Ring-Bore Conformance and Contact Condition and Experimental Validation. , 2012, , .		2
65	In-Plane and Out-of-Plane Elastodynamics of Thin Rings and Seals. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	2
66	Transient non-Newtonian elastohydrodynamics of rough meshing hypoid gear teeth subjected to complex contact kinematics. Tribology International, 2022, 167, 107398.	3.0	2
67	Meniscus Formation in the Piston Compression Ring-Cylinder Liner Inlet Zone. , 2012, , .		1
68	Asperity level frictional interactions of cylinder bore materials and lubricant composition. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 679-686.	1.0	1
69	Tribology of Power Train Systems. , 2017, , 916-934.		1
70	Three Dimensional Numerical Modelling of Staggered Tube Bundle Turbulent Crossflow in Duct. , 2005, , 609.		0
71	Computation of Velocity Profiles and Pressure Coefficients for a Laminar Flow of Air Over Staggered Array of Tubes. , 2005, , 479.		0
72	Structural analysis and topology optimisation of an aftercooler cover for weight reduction in off-highway engine application. International Journal of Powertrains, 2018, 7, 94.	0.1	0

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73	Numerical heat transfer modelling of staggered array impinging jets. WIT Transactions on Engineering Sciences, 2006, , .	0.0	0
74	On Predicting Automotive Clutch Torsional Vibrations. , 0, , .		0