Rob Hewson

List of Publications by Year
in descending order

40 papers	629 citations	566801 15 h-index	610482 24 g-index
40 all docs	40 docs citations	40 times ranked	762 citing authors

#	Article	IF	Citations
1	Design Methodology for Magnetic Field-Based Soft Tri-Axis Tactile Sensors. Sensors, 2016, 16, 1356.	2.1	98
2	Robust and high-performance soft inductive tactile sensors based on the Eddy-current effect. Sensors and Actuators A: Physical, 2018, 271, 44-52.	2.0	42
3	Multiscale structural optimization towards three-dimensional printable structures. Structural and Multidisciplinary Optimization, 2019, 60, 513-525.	1.7	41
4	Development of anti-icing materials by chemical tailoring of hydrophobic textured metallic surfaces. Journal of Colloid and Interface Science, 2013, 394, 539-544.	5.0	40
5	A semi-analytical model for the combined aeroelastic behaviour and gust response of a flexible aerofoil. Journal of Fluids and Structures, 2013, 38, 3-21.	1.5	29
6	Multidisciplinary multifidelity optimisation of a flexible wing aerofoil with reference to a small UAV. Structural and Multidisciplinary Optimization, 2014, 50, 683-699.	1.7	28
7	A model for film-forming with Newtonian and shear-thinning fluids. Journal of Non-Newtonian Fluid Mechanics, 2009, 162, 21-28.	1.0	26
8	Reviewing the technological challenges associated with the development of a laparoscopic palpation device. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 146-159.	1.2	25
9	A theoretical and experimental investigation of tri-helical gravure roll coating. Chemical Engineering Science, 2006, 61, 5487-5499.	1.9	24
10	An Investigation of Freezing of Supercooled Water on Anti-Freeze Protein Modified Surfaces. Journal of Bionic Engineering, 2013, 10, 139-147.	2.7	24
11	Design Optimisation of a Magnetic Field Based Soft Tactile Sensor. Sensors, 2017, 17, 2539.	2.1	22
12	Elastohydrodynamic lubrication and wear modelling of the knee joint replacements with surface topography. Biosurface and Biotribology, 2018, 4, 18-23.	0.6	21
13	Multifidelity metamodel building as a route to aeroelastic optimization of flexible wings. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2011, 225, 2115-2137.	1.1	20
14	Two-scale EHL: Three-dimensional topography in tilted-pad bearings. Tribology International, 2014, 79, 111-125.	3.0	19
15	A Low-cost Soft Tactile Sensing Array Using 3D Hall Sensors. Procedia Engineering, 2016, 168, 650-653.	1.2	16
16	A two-scale model for discrete cell gravure roll coating. Chemical Engineering Science, 2011, 66, 3666-3674.	1.9	14
17	A Multiscale Framework for EHL and Micro-EHL. Tribology Transactions, 2012, 55, 713-722.	1.1	13
18	The role of micro-cavitation on EHL: A study using a multiscale mass conserving approach. Tribology International, 2015, 90, 324-331.	3.0	12

#	Article	IF	Citations
19	A multiscale method for optimising surface topography in elastohydrodynamic lubrication (EHL) using metamodels. Structural and Multidisciplinary Optimization, 2016, 54, 483-497.	1.7	12
20	The effect of locally induced flow structure on global heat transfer for plane laminar shear flow. International Journal of Heat and Fluid Flow, 2009, 30, 175-185.	1.1	10
21	Composite stacking sequence optimization for aeroelastically tailored forward-swept wings. Structural and Multidisciplinary Optimization, 2017, 55, 105-119.	1.7	10
22	Multiscale structural optimization with concurrent coupling between scales. Structural and Multidisciplinary Optimization, 2021, 63, 1721-1741.	1.7	10
23	Tri-helical gravure roll coating. Chemical Engineering Science, 2010, 65, 1311-1321.	1.9	9
24	Free Surface Model Derived From the Analytical Solution of Stokes Flow in a Wedge. Journal of Fluids Engineering, Transactions of the ASME, 2009, 131, .	0.8	7
25	An investigation into the contact between soft elastic and poroelastic bodies rotating under load. Tribology - Materials, Surfaces and Interfaces, 2017, 11, 193-201.	0.6	7
26	Multiscale optimisation of resonant frequencies for lattice-based additive manufactured structures. Structural and Multidisciplinary Optimization, 2021, 63, 1187-1201.	1.7	7
27	Algorithm 1008. ACM Transactions on Mathematical Software, 2020, 46, 1-26.	1.6	7
28	Topology optimisation of biphasic adsorbent beds for gas storage. Structural and Multidisciplinary Optimization, 2018, 58, 2431-2454.	1.7	6
29	A predictive model for discrete cell gravure roll coating. Physics of Fluids, 2017, 29, .	1.6	6
30	Analytical and numerical solutions of thin lubricating films for differing shear-thinning viscosity models. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2007, 221, 355-366.	1.0	4
31	Compliant-poroelastic lubrication in cartilage-on-cartilage line contacts. Tribology - Materials, Surfaces and Interfaces, 2020, 14, 151-165.	0.6	4
32	Transient mixed lubrication model of the human knee implant. Biosurface and Biotribology, 2021, 7, 206-218.	0.6	4
33	Modelling the discrete-cell gravure roll coating process. European Physical Journal: Special Topics, 2009, 166, 99-102.	1.2	3
34	Influence of material properties and operating conditions on the predicted performance of poroelastic faced bearings. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2014, 228, 131-139.	1.0	3
35	Multidisciplinary Multifidelity Optimisation of a Flexible Wing Aerofoil for Small UAV. , 2012, , .		2
36	Effects of shear thinning on forward roll coating. Chemical Engineering Research and Design, 2013, 91, 2427-2436.	2.7	2

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37	Functionally graded optimisation of adsorption systems with phase change materials. Structural and Multidisciplinary Optimization, 2021, 64, 473-503.	1.7	1
38	Finite element investigations of the fluid-solid behaviour in a bio-inspired poroelastic bearing. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2022, 236, 1531-1544.	1.0	1
39	Approximate numerical method for lubrication with Generalised Newtonian fluids. Tribology - Materials, Surfaces and Interfaces, 2012, 6, 142-145.	0.6	0
40	In-loop additive manufacturing constraints for open-walled microstructures. Additive Manufacturing, 2021, 48, 102385.	1.7	0