

David Nowell

List of Publications by Year in descending order

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117
papers

3,846
citations

87888

38
h-index

138484

58
g-index

119
all docs

119
docs citations

119
times ranked

1461
citing authors

#	ARTICLE	IF	CITATIONS
1	The effects of external loading on low displacement wear rates of unlubricated steels. <i>Wear</i> , 2022, 490-491, 204034.	3.1	1
2	An exploration of debris types and their influence on wear rates in fretting. <i>Wear</i> , 2020, 450-451, 203252.	3.1	13
3	A study of overload effect on fatigue crack propagation using EBSD, FIB-DIC and FEM methods. <i>Engineering Fracture Mechanics</i> , 2016, 167, 210-223.	4.3	54
4	Measurement of fatigue crack deformation on the macro- and micro-scale: Uniform and non-uniform loading. <i>International Journal of Fatigue</i> , 2016, 89, 66-76.	5.7	21
5	International Conference on Fatigue Damage of Structural Materials. <i>International Journal of Fatigue</i> , 2016, 82, 119.	5.7	0
6	Strain Analysis: Past, Present, and Future. <i>Journal of Strain Analysis for Engineering Design</i> , 2015, 50, 411-411.	1.8	0
7	Fatigue behaviour of geometric features subjected to laser shock peening: Experiments and modelling. <i>International Journal of Fatigue</i> , 2014, 62, 171-179.	5.7	65
8	Mechanics of fretting fatigue—Oxford's contribution. <i>Tribology International</i> , 2014, 76, 1-5.	5.9	23
9	The influence of contacting Ni-based single-crystal superalloys on fretting fatigue of Ni-based polycrystalline superalloys at high temperature. <i>Tribology International</i> , 2014, 76, 63-72.	5.9	25
10	Digital image correlation measurement of near-tip fatigue crack displacement fields: constant amplitude loading and load history effects. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2013, 36, 3-13.	3.4	26
11	A Comparison of Contact Stiffness Measurements Obtained by the Digital Image Correlation and Ultrasound Techniques. <i>Experimental Mechanics</i> , 2013, 53, 1245-1263.	2.0	39
12	Eigenstrain modelling of residual stress generated by arrays of laser shock peening shots and determination of the complete stress field using limited strain measurements. <i>Surface and Coatings Technology</i> , 2013, 216, 68-77.	4.8	41
13	Analytical and Numerical Models for Tangential Stiffness of Rough Elastic Contacts. <i>Tribology Letters</i> , 2013, 49, 103-115.	2.6	75
14	Guest Editorial: Special Issue on Characterisation of Crack Tip Stress Fields. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2013, 36, 1-2.	3.4	0
15	Validation of an Hcr-based fracture initiation criterion for adhesively bonded joints. <i>Engineering Fracture Mechanics</i> , 2012, 80, 13-27.	4.3	33
16	An elastic-plastic asperity interaction model for sliding friction. <i>Tribology International</i> , 2011, 44, 1679-1694.	5.9	94
17	Long term wear of complete contacts subject to fretting. <i>Wear</i> , 2011, 271, 2821-2825.	3.1	2
18	Determination of the Frictional Properties of Titanium and Nickel Alloys Using the Digital Image Correlation Method. <i>Experimental Mechanics</i> , 2011, 51, 359-371.	2.0	46

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19	Partial slip problem for two semi-infinite strips in contact. <i>International Journal of Engineering Science</i> , 2011, 49, 203-211.	5.0	12
20	Eigenstrain modelling of residual stresses generated by laser shock peening. <i>Journal of Materials Processing Technology</i> , 2011, 211, 1091-1101.	6.3	79
21	Eigenstrain modelling of residual stresses generated by arrays of LSP shots. <i>Procedia Engineering</i> , 2011, 10, 1327-1332.	1.2	10
22	Investigation of non-Coulomb friction behaviour in reciprocating sliding. <i>Wear</i> , 2011, 271, 802-816.	3.1	49
23	Measurements of pressure and area dependent tangential contact stiffness between rough surfaces using digital image correlation. <i>Tribology International</i> , 2011, 44, 1188-1198.	5.9	63
24	Application of digital image correlation to the investigation of crack closure following overloads. <i>Procedia Engineering</i> , 2010, 2, 1035-1043.	1.2	37
25	The effect of wear on nucleation of cracks at the edge of an almost complete contact. <i>Wear</i> , 2010, 268, 900-904.	3.1	5
26	Torsional contact between elastically similar flat-ended cylinders. <i>International Journal of Solids and Structures</i> , 2010, 47, 1375-1380.	2.7	13
27	Optical methods for measurement of fatigue crack closure: moiré interferometry and digital image correlation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2010, 33, 778-790.	3.4	29
28	Residual stress measurement by deep hole drilling and trepanning "analysis with distributed dislocations. <i>Journal of Strain Analysis for Engineering Design</i> , 2009, 44, 45-54.	1.8	12
29	Inertia friction welds between nickel superalloy components: Analysis of residual stress by eigenstrain distributions. <i>Journal of Strain Analysis for Engineering Design</i> , 2009, 44, 159-170.	1.8	9
30	Experimental and numerical investigation of thickness effects in plasticity-induced fatigue crack closure. <i>International Journal of Fatigue</i> , 2009, 31, 1795-1804.	5.7	72
31	Crack tip deformation fields and fatigue crack growth rates in Ti-6Al-4V. <i>International Journal of Fatigue</i> , 2009, 31, 1771-1779.	5.7	50
32	What features are needed in a fretting fatigue test?. <i>Tribology International</i> , 2009, 42, 1316-1323.	5.9	10
33	Mixed high low fretting fatigue of Ti6Al4V: Tests and modelling. <i>Tribology International</i> , 2009, 42, 1276-1285.	5.9	10
34	Prediction of fretting crack propagation based on a short crack methodology. <i>Engineering Fracture Mechanics</i> , 2008, 75, 1605-1622.	4.3	60
35	Numerical simulation of plasticity-induced fatigue crack closure with emphasis on the crack growth scheme: 2D and 3D analyses. <i>Engineering Fracture Mechanics</i> , 2008, 75, 2087-2114.	4.3	91
36	The influence of the Poisson's ratio and corner point singularities in three-dimensional plasticity-induced fatigue crack closure: A numerical study. <i>International Journal of Fatigue</i> , 2008, 30, 1930-1943.	5.7	34

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37	Skew sliding of an elastic cylinder: An investigation of convection in contact. International Journal of Mechanical Sciences, 2008, 50, 293-298.	6.7	7
38	Analytical and numerical modelling of plasticity-induced crack closure in cold-expanded holes. Fatigue and Fracture of Engineering Materials and Structures, 2008, 31, 488-503.	3.4	12
39	On the stress analysis of a wound coil with application to electromagnet manufacture. Journal of Strain Analysis for Engineering Design, 2007, 42, 447-460.	1.8	3
40	Techniques for Experimental Measurement of Fatigue Crack Closure. Applied Mechanics and Materials, 2007, 7-8, 3-9.	0.2	6
41	Variational eigenstrain analysis of residual stresses in a welded plate. International Journal of Solids and Structures, 2007, 44, 4574-4591.	2.7	89
42	Prediction of the combined high- and low-cycle fatigue performance of gas turbine blades after foreign object damage. International Journal of Fatigue, 2007, 29, 69-80.	5.7	68
43	A comparison of two and three-dimensional analyses of fatigue crack closure. International Journal of Fatigue, 2007, 29, 222-231.	5.7	57
44	On the accurate assessment of crack opening and closing stresses in plasticity-induced fatigue crack closure problems. Engineering Fracture Mechanics, 2007, 74, 1579-1601.	4.3	65
45	Residual Stress Reconstruction by Variational Eigenstrain Procedures. Materials Science Forum, 2006, 524-525, 241-246.	0.3	0
46	Recent developments in the understanding of fretting fatigue. Engineering Fracture Mechanics, 2006, 73, 207-222.	4.3	206
47	The use of notch and short crack approaches to fretting fatigue threshold prediction: Theory and experimental validation. Tribology International, 2006, 39, 1158-1165.	5.9	44
48	Fretting fatigue in dovetail blade roots: Experiment and analysis. Tribology International, 2006, 39, 1277-1285.	5.9	123
49	<title>Residual stress analysis of welded joints by the variational eigenstrain approach</title>. , 2005, , .		2
50	Measurement of crack closure after the application of an overload cycle, using moiré interferometry. International Journal of Fatigue, 2005, 27, 1453-1462.	5.7	13
51	Size and Scale Effects in Fretting Fatigue Thresholds. International Journal of Fracture, 2005, 135, L11-L18.	2.2	4
52	On the finite element analysis of contacting bodies using submodelling. Journal of Strain Analysis for Engineering Design, 2005, 40, 95-106.	1.8	25
53	Improved Influence Functions For Uniform Triangular Dislocation Density Functions. Journal of Strain Analysis for Engineering Design, 2005, 40, 729-733.	1.8	1
54	The use of multiaxial fatigue models to predict fretting fatigue life of components subjected to different contact stress fields. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 967-978.	3.4	54

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55	Crack closure measurements using Moiré ^{1/2} interferometry with photoresist gratings. International Journal of Fatigue, 2004, 26, 1075-1082.	5.7	11
56	Flat and rounded fretting contact problems incorporating elastic layers. International Journal of Mechanical Sciences, 2004, 46, 1635-1657.	6.7	17
57	Analysis of a Rocking and Walking Punch Part II: General Numerical Solution Using Quadratic Programming. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 234-239.	2.2	3
58	Prediction of fatigue performance in gas turbine blades after foreign object damage. International Journal of Fatigue, 2003, 25, 963-969.	5.7	95
59	Stress gradient effects in fretting fatigue. Tribology International, 2003, 36, 71-78.	5.9	51
60	Prediction of the slip zone friction coefficient in flat and rounded contact. Wear, 2003, 254, 364-369.	3.1	26
61	The use of closure maps to characterise plasticity induced crack closure. International Journal of Fatigue, 2003, 25, 257-264.	5.7	0
62	Stress analysis of V-notches with and without cracks, with application to foreign object damage. Journal of Strain Analysis for Engineering Design, 2003, 38, 429-441.	1.8	28
63	Application of Multiaxial Fatigue Parameters to Fretting Contacts with High Stress Gradients. , 2003, , 133-144.		0
64	Modifications to a fretting-fatigue testing apparatus based upon an analysis of contact stresses at complete and nearly complete contacts. Wear, 2002, 252, 475-483.	3.1	38
65	The effect of rapidly varying contact stress fields on fretting fatigue. International Journal of Fatigue, 2002, 24, 763-775.	5.7	238
66	A discussion of: 'Peak contact pressure, cyclic stress amplitudes, contact semi-width and slip amplitude: relative effects on fatigue life' by K. Iyer. International Journal of Fatigue, 2001, 23, 747-748.	5.7	5
67	A combined testing and modelling approach to the prediction of the fretting fatigue performance of splined shafts. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2001, 215, 105-112.	1.3	31
68	Partial slip between contacting cylinders under transverse and axial shear. International Journal of Mechanical Sciences, 2000, 42, 199-212.	6.7	14
69	A comparison between actual and stress intensity near-crack-tip elastic fields. International Journal of Fatigue, 2000, 22, 551-558.	5.7	7
70	Three-dimensional cracks with Dugdale-type plastic zones. International Journal of Fracture, 2000, 106, 291-309.	2.2	14
71	Measurement of residual stresses in beams and plates using the crack compliance technique. Journal of Strain Analysis for Engineering Design, 2000, 35, 277-285.	1.8	9
72	Length Scale Considerations in Fretting Fatigue. , 2000, , 141-153.		8

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73	Closed-Form Integrals for Constant and Linear Elements in the Eigenstrain Method. Journal of Applied Mechanics, Transactions ASME, 1999, 66, 268-272.	2.2	0
74	Strain changes caused by finite width slots, with particular reference to residual stress measurement. Journal of Strain Analysis for Engineering Design, 1999, 34, 285-294.	1.8	14
75	Analysis of pad size effects in fretting fatigue using short crack arrest methodologies. International Journal of Fatigue, 1999, 21, 947-956.	5.7	105
76	Small crack methodologies and crack arrest in fretting fatigue. , 1999, , 361-372.		0
77	A Theoretical and Experimental Investigation of the Influence of Crack Tip Plasticity on Fatigue Crack Closure. , 1999, , 438-452.		0
78	Designing against fretting fatigue: Crack self-arrest. Journal of Strain Analysis for Engineering Design, 1998, 33, 17-25.	1.8	15
79	Analysis of Surface Traction in Complex Fretting Fatigue Cycles Using Quadratic Programming. Journal of Tribology, 1998, 120, 744-749.	1.9	22
80	Stresses in a flat plate due to a loose pin pressing against a cracked hole. Journal of Strain Analysis for Engineering Design, 1997, 32, 145-156.	1.8	11
81	Stress intensity factors and fatigue life of beams in reversed bending. Journal of Strain Analysis for Engineering Design, 1997, 32, 401-409.	1.8	1
82	ANALYSIS OF CRACK INITIATION AND PROPAGATION IN FRETTING FATIGUE: THE EFFECTIVE INITIAL FLAW SIZE METHODOLOGY. Fatigue and Fracture of Engineering Materials and Structures, 1997, 20, 61-70.	3.4	14
83	Modelling of growth of three-dimensional cracks by a continuous distribution of dislocation loops. Computational Mechanics, 1997, 19, 538-544.	4.0	10
84	On the initiation of fretting fatigue cracks. Wear, 1997, 205, 120-129.	3.1	50
85	Formulation and implementation of the eigenstrain method employing higher order elements. International Journal of Solids and Structures, 1996, 33, 331-342.	2.7	6
86	The solution of cracks emanating from circular holes. Journal of Strain Analysis for Engineering Design, 1996, 31, 235-242.	1.8	5
87	The solution of the contact between a tilted circular rigid punch and an elastic half-space. Wear, 1995, 184, 93-95.	3.1	7
88	Contact stresses in a moderately thin strip (with particular reference to fretting experiments). Wear, 1995, 185, 235-238.	3.1	45
89	The propulsion of surface flaws by elastic indentation testing. Acta Metallurgica Et Materialia, 1995, 43, 985-991.	1.8	8
90	Static Axisymmetric Hertzian Contacts Subject to Shearing Forces. Journal of Applied Mechanics, Transactions ASME, 1994, 61, 278-283.	2.2	52

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91	The Complete Stress Field due to a Dislocation Located Anywhere in Two Bonded Quarter Planes. Journal of Applied Mechanics, Transactions ASME, 1994, 61, 992-993.	2.2	4
92	The edge interface crack. International Journal of Fracture, 1994, 67, 263-271.	2.2	4
93	Curved interface cracks between elastically dissimilar media, with application to the analysis of circular inclusions. International Journal of Mechanical Sciences, 1994, 36, 173-181.	6.7	12
94	USE OF THE DISTRIBUTED DISLOCATIONS METHOD TO DETERMINE THE T-STRESS. Fatigue and Fracture of Engineering Materials and Structures, 1994, 17, 605-618.	3.4	18
95	Eigenstrain methods in three-dimensional crack problems: An alternative integration procedure. Journal of the Mechanics and Physics of Solids, 1993, 41, 1003-1017.	4.8	22
96	Applications of the boundary element and dislocation density methods in plane crack problems. Engineering Analysis With Boundary Elements, 1993, 11, 129-135.	3.7	11
97	Partial closure and frictional slip of 3-D cracks. International Journal of Fracture, 1993, 63, 89-99.	2.2	12
98	Stress Field due to a Dislocation on the Interface Between Two Quarter Planes. Journal of Applied Mechanics, Transactions ASME, 1993, 60, 743-748.	2.2	3
99	The evaluation of stress intensity factors for plane cracks in residual stress fields. Journal of Strain Analysis for Engineering Design, 1993, 28, 145-152.	1.8	15
100	The Stress Field Induced by a General Elliptical Hertzian Contact. Journal of Tribology, 1993, 115, 705-706.	1.9	2
101	The design of joints between elastically dissimilar components (with special reference to) Tj ETQq1 1 0.784314 rgBT /Overlock_10 Tf 50	1.8	38
102	Models for plastic constraint in brazed or diffusion-bonded joints between ceramic components. Acta Metallurgica Et Materialia, 1992, 40, 2149-2154.	1.8	5
103	Calculation of the opening displacement of surface-breaking plane cracks. Computer Methods in Applied Mechanics and Engineering, 1992, 97, 321-331.	6.6	16
104	The Development of a Fretting Fatigue Experiment with Well-Defined Characteristics. , 1992, , 69-84.		11
105	Brief note on the tractive rolling of dissimilar elastic cylinders. International Journal of Mechanical Sciences, 1991, 33, 225-228.	6.7	11
106	Crack initiation criteria in fretting fatigue. Wear, 1990, 136, 329-343.	3.1	109
107	The state of stress induced by cylindrical sliding contacts with frictional heating. International Journal of Mechanical Sciences, 1990, 32, 767-778.	6.7	14
108	Stress intensity calibrations for closed cracks. Journal of Strain Analysis for Engineering Design, 1989, 24, 37-43.	1.8	22

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109	Plane cracks near interfaces. <i>Engineering Analysis With Boundary Elements</i> , 1989, 6, 30-37.	3.7	6
110	INITIATION AND GROWTH OF FRETTING FATIGUE CRACKS IN THE PARTIAL SLIP REGIME. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1989, 12, 387-398.	3.4	58
111	On the mechanics of fretting fatigue. <i>Wear</i> , 1988, 125, 129-146.	3.1	93
112	Tractive rolling of dissimilar elastic cylinders. <i>International Journal of Mechanical Sciences</i> , 1988, 30, 427-439.	6.7	35
113	Tractive rolling of tyred cylinders. <i>International Journal of Mechanical Sciences</i> , 1988, 30, 945-957.	6.7	29
114	Contact problems incorporating elastic layers. <i>International Journal of Solids and Structures</i> , 1988, 24, 105-115.	2.7	74
115	Contact of dissimilar elastic cylinders under normal and tangential loading. <i>Journal of the Mechanics and Physics of Solids</i> , 1988, 36, 59-75.	4.8	91
116	Open cracks at or near free edges. <i>Journal of Strain Analysis for Engineering Design</i> , 1987, 22, 177-185.	1.8	106
117	Mechanics of fretting fatigue tests. <i>International Journal of Mechanical Sciences</i> , 1987, 29, 355-356.	6.7	83