

# Fpe Dunne

## List of Publications by Year in descending order

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43  
papers

2,522  
citations

236925

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254184

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docs citations

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times ranked

1452  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructure-sensitive computational modeling of fatigue crack formation. <i>International Journal of Fatigue</i> , 2010, 32, 1521-1542.	5.7	431
2	Lengthscale-dependent, elastically anisotropic, physically-based hcp crystal plasticity: Application to cold-dwell fatigue in Ti alloys. <i>International Journal of Plasticity</i> , 2007, 23, 1061-1083.	8.8	384
3	Experimental and computational studies of low cycle fatigue crack nucleation in a polycrystal. <i>International Journal of Plasticity</i> , 2007, 23, 273-295.	8.8	207
4	A stored energy criterion for fatigue crack nucleation in polycrystals. <i>International Journal of Fatigue</i> , 2014, 68, 90-102.	5.7	129
5	The role of elastic anisotropy, length scale and crystallographic slip in fatigue crack nucleation. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 1224-1240.	4.8	127
6	A systematic study of hcp crystal orientation and morphology effects in polycrystal deformation and fatigue. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 1467-1489.	2.1	119
7	Microstructurally sensitive crack nucleation around inclusions in powder metallurgy nickel-based superalloys. <i>Acta Materialia</i> , 2016, 117, 333-344.	7.9	99
8	Physically-based model for creep in nickel-base superalloy C263 both above and below the gamma solvus. <i>Acta Materialia</i> , 2002, 50, 2917-2931.	7.9	89
9	On cold dwell facet fatigue in titanium alloy aero-engine components. <i>International Journal of Fatigue</i> , 2017, 97, 177-189.	5.7	76
10	Fatigue crack nucleation: Mechanistic modelling across the length scales. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 170-179.	11.5	68
11	Strain-gradient modelling of grain size effects on fatigue of CoCr alloy. <i>Acta Materialia</i> , 2014, 78, 341-353.	7.9	66
12	Microstructure-sensitive fatigue crack nucleation in a polycrystalline Ni superalloy. <i>International Journal of Fatigue</i> , 2016, 90, 181-190.	5.7	52
13	Initiation of dynamic recrystallization under inhomogeneous stress states in pure copper. <i>Acta Materialia</i> , 1999, 47, 4339-4354.	7.9	50
14	Strain localization and failure in irradiated zircaloy with crystal plasticity. <i>International Journal of Plasticity</i> , 2015, 71, 170-194.	8.8	50
15	Representation of uniaxial creep curves using continuum damage mechanics. <i>International Journal of Mechanical Sciences</i> , 1990, 32, 945-957.	6.7	46
16	Multiaxial creep and cyclic plasticity in nickel-base superalloy C263. <i>International Journal of Plasticity</i> , 2005, 21, 1-20.	8.8	45
17	An HR-EBSD and computational crystal plasticity investigation of microstructural stress distributions and fatigue hotspots in polycrystalline copper. <i>Acta Materialia</i> , 2016, 115, 45-57.	7.9	42
18	Inhomogeneity of microstructure in superplasticity and its effect on ductility. <i>International Journal of Plasticity</i> , 1998, 14, 413-433.	8.8	41

#	ARTICLE	IF	CITATIONS
19	Micro-scale testing and micromechanical modelling for high cycle fatigue of CoCr stent material. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 46, 244-260.	3.1	38
20	Texture, hardening and non-proportionality of strain in BCC polycrystal deformation. <i>International Journal of Plasticity</i> , 2013, 50, 170-192.	8.8	33
21	Determination of sub-surface stresses at inclusions in single crystal superalloy using HR-EBSD, crystal plasticity and inverse eigenstrain analysis. <i>International Journal of Solids and Structures</i> , 2015, 67-68, 27-39.	2.7	31
22	GND accumulation in bi-crystal deformation: Crystal plasticity analysis and comparison with experiments. <i>International Journal of Mechanical Sciences</i> , 2009, 51, 326-333.	6.7	30
23	A synchrotron X-ray diffraction study of non-proportional strain-path effects. <i>Acta Materialia</i> , 2017, 124, 290-304.	7.9	30
24	Determination of the complete microscale residual stress tensor at a subsurface carbide particle in a single-crystal superalloy from free-surface EBSD. <i>Acta Materialia</i> , 2012, 60, 5300-5310.	7.9	28
25	Assessment of X-ray diffraction and crystal plasticity lattice strain evolutions under biaxial loading. <i>International Journal of Plasticity</i> , 2016, 83, 1-18.	8.8	28
26	Modelling central bursting in the extrusion of particulate reinforced metal matrix composite materials. <i>International Journal of Machine Tools and Manufacture</i> , 1997, 37, 901-915.	13.4	21
27	Effects of crystallographic orientation and grain morphology on crack tip stress state and plasticity. <i>International Journal of Fatigue</i> , 2014, 61, 46-58.	5.7	19
28	Integrated experiment and modelling of microstructurally-sensitive crack growth. <i>International Journal of Fatigue</i> , 2016, 91, 110-123.	5.7	17
29	Fibre re-arrangement and matrix softening phenomena in matrix-coated fibre (MCF) composites during vacuum hot pressing consolidation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 346, 246-253.	5.6	14
30	Constitutive equations for densification of matrix-coated fibre composites during hot isostatic pressing. <i>International Journal of Plasticity</i> , 2003, 19, 345-363.	8.8	13
31	Coupled effects of texture, hardening and non-proportionality of strain on ductility in ferritic steel. <i>Computational Materials Science</i> , 2013, 80, 113-122.	3.0	13
32	Dynamic densification of metal matrix-coated fibre composites: modelling and processing. <i>Acta Materialia</i> , 2005, 53, 617-628.	7.9	12
33	Modelling void nucleation and growth processes in a particle-reinforced metal matrix composite material. <i>Computational Materials Science</i> , 1996, 5, 177-186.	3.0	11
34	The effect of volume fraction of reinforcement on the elastic-viscoplastic response of metal-matrix composites. <i>International Journal of Mechanical Sciences</i> , 1995, 38, 19-39.	6.7	10
35	An elastic-viscoplastic large deformation model and its application to particle filled polymer film. <i>Computational Materials Science</i> , 1994, 3, 146-158.	3.0	8
36	Lattice strain distributions due to elastic distortions and GND development in polycrystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 67, 62-86.	4.8	8

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37	Statistical effects in X-ray diffraction lattice strain measurements of ferritic steel using crystal plasticity. <i>Materials and Design</i> , 2018, 153, 159-165.	7.0	8
38	Dynamic recrystallisation in a copper/stainless steel pseudo-two-phase material. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 293, 173-184.	5.6	7
39	Modelling heterogeneous microstructures, inhomogeneous deformation and failure in superplasticity. <i>Journal of Materials Processing Technology</i> , 1998, 80-81, 96-100.	6.3	6
40	Micro-mechanical modelling of strain induced porosity under generally compressive stress states. <i>International Journal of Plasticity</i> , 1998, 14, 577-595.	8.8	6
41	Lattice strains at cracks in single crystal titanium: Elastic distortion and GND contributions. <i>International Journal of Solids and Structures</i> , 2016, 80, 237-245.	2.7	5
42	Crystal plasticity and multiscale modelling of superalloy creep. <i>Philosophical Magazine</i> , 2012, 92, 830-848.	1.6	3
43	Large deformation compression-torsion behaviour of a titanium alloy and its modelling. <i>International Journal of Mechanical Sciences</i> , 1998, 40, 901-912.	6.7	2