Patrick W Dondl

List of Publications by Year
in descending order

49	346	840776 11	888059 17
papers	citations	h-index	g-index

49	49	49	304
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enabling technologies towards personalization of scaffolds for large bone defect regeneration. Current Opinion in Biotechnology, 2022, 74, 263-270.	6.6	8
2	A Proof of Taylor Scaling forÂCurvature-Driven Dislocation Motion Through Random Arrays of Obstacles. Archive for Rational Mechanics and Analysis, 2022, 244, 317.	2.4	0
3	Linearization and computation for large-strain visco-elasticity. Mathematics in Engineering, 2022, 5, 1-15.	0.9	2
4	An Efficient Model For Scaffold Mediated Bone Regeneration. SIAM Journal on Applied Mathematics, 2022, 82, 924-949.	1.8	0
5	Charting the twist-to-bend ratio of plant axes. Journal of the Royal Society Interface, 2022, 19, .	3.4	4
6	Uniform convergence guarantees for the deep Ritz method for nonlinear problems. , 2022, 2022, .		2
7	Approximation of Integral Fractional Laplacian and Fractional PDEs via sinc-Basis. SIAM Journal of Scientific Computing, 2021, 43, A2897-A2922.	2.8	5
8	Pinning of interfaces in a random medium with zero mean. Interfaces and Free Boundaries, 2021, 23, 305-321.	0.8	1
9	Threshold phenomenon for homogenized fronts in random elastic media. Discrete and Continuous Dynamical Systems - Series S, 2021, 14, 353-372.	1.1	1
10	Influence of structural reinforcements on the twist-to-bend ratio of plant axes: a case study on Carex pendula. Scientific Reports, 2021, 11, 21232.	3.3	6
11	Keeping it together: A phase-field version of path-connectedness and its implementation. Journal of Algorithms and Computational Technology, 2021, 15, 174830262110543.	0.7	0
12	Pinning of interfaces by localized dry friction. Journal of Differential Equations, 2020, 269, 7356-7381.	2.2	2
13	Bounds on precipitate hardening of line and surface defects in solids. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	1.4	1
14	Integrated additive design and manufacturing approach for the bioengineering of bone scaffolds for favorable mechanical and biological properties. Biomedical Materials (Bristol), 2019, 14, 065002.	3.3	18
15	Simultaneous elastic shape optimization for a domain splitting in bone tissue engineering. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180718.	2.1	4
16	Optimization of Bone Scaffold Porosity Distributions. Scientific Reports, 2019, 9, 9170.	3.3	51
17	On the boundary regularity of phase-fields for Willmore's energy. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2019, 149, 1017-1035.	1.2	0
18	The Effect of Forest Dislocations on the Evolution of a Phase-Field Model for Plastic Slip. Archive for Rational Mechanics and Analysis, 2019, 232, 65-119.	2.4	3

#	Article	IF	Citations
19	A gradient system with a wiggly energy and relaxed EDP-convergence. ESAIM - Control, Optimisation and Calculus of Variations, 2019, 25, 68.	1.3	13
20	A Phase-field Approximation of the Perimeter under a Connectedness Constraint. SIAM Journal on Mathematical Analysis, 2019, 51, 3902-3920.	1.9	4
21	Twist-to-bend ratio: an important selective factor for many rod-shaped biological structures. Scientific Reports, 2019, 9, 17182.	3.3	14
22	On the existence of minimisers for strainâ€gradient singleâ€crystal plasticity. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 431-447.	1.6	2
23	Phase Field Models for Thin Elastic Structures with Topological Constraint. Archive for Rational Mechanics and Analysis, 2017, 223, 693-736.	2.4	18
24	Uniform regularity and convergence of phase-fields for Willmoreâ€™s energy. Calculus of Variations and Partial Differential Equations, 2017, 56, 1.	1.7	4
25	Ballistic and sub-ballistic motion of interfaces in a field of random obstacles. Annals of Applied Probability, 2017, 27, .	1.3	5
26	Effective behavior of an interface propagating through a periodic elastic medium. Interfaces and Free Boundaries, 2016, 18, 91-113.	0.8	8
27	Optimization of the branching pattern in coherent phase transitions. Comptes Rendus Mathematique, 2016, 354, 639-644.	0.3	4
28	Pinning of interfaces in a random elastic medium and logarithmic lattice embeddings in percolation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2015, 145, 481-512.	1.2	3
29	Relaxation of the Non-Convex, Incremental Energy-Minimization Problem in Single-Slip Strain-Gradient Plasticity. Key Engineering Materials, 2015, 651-653, 963-968.	0.4	0
30	Microstructure in Plasticity, a Comparison between Theory and Experiment. Lecture Notes in Applied and Computational Mechanics, 2015, , 205-218.	2.2	4
31	Energy Estimates, Relaxation, and Existence for Strain-Gradient Plasticity with Cross-Hardening. Lecture Notes in Applied and Computational Mechanics, 2015, , 157-173.	2.2	5
32	Relaxation of the single-slip condition in strain-gradient plasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140098.	2.1	11
33	A Phase Field Model for the Optimization of the Willmore Energy in the Class of Connected Surfaces. SIAM Journal on Mathematical Analysis, 2014, 46, 1610-1632.	1.9	4
34	Optimal energy scaling for a shear experiment in single-crystal plasticity with cross-hardening. Zeitschrift Fur Angewandte Mathematik Und Physik, 2014, 65, 1011-1030.	1.4	3
35	Mini-Workshop: Inelastic and Non-equilibrium Material Behavior: from Atomistic Structure to Macroscopic Constitutive Relations. Oberwolfach Reports, 2014, 10, 3147-3188.	0.0	0
36	Positive speed of propagation in a semilinear parabolic interface model with unbounded random coefficients. Networks and Heterogeneous Media, 2012, 7, 137-150.	1.1	5

#	Article	IF	Citations
37	Confined Elastic Curves. SIAM Journal on Applied Mathematics, 2011, 71, 2205-2226.	1.8	18
38	Pinning of interfaces in random media. Interfaces and Free Boundaries, 2011, 13, 411-421.	0.8	16
39	Numerical and analytical aspects of the pinning of martensitic phase boundaries. GAMM Mitteilungen, 2011, 34, 118-123.	5.5	0
40	A Sharp Interface Model for the Propagation of Martensitic Phase Boundaries. Archive for Rational Mechanics and Analysis, 2010, 197, 599-617.	2.4	6
41	Lipschitz percolation. Electronic Communications in Probability, 2010, 15, .	0.4	22
42	Modeling transformation paths of multiphase materials: The triple point of zirconia. Physical Review B, 2009, 79, .	3.2	1
43	Lamination microstructure in shear deformed copper single crystals. Acta Materialia, 2009, 57, 3439-3449.	7.9	48
44	Computational analysis of martensitic thin films using subdivision surfaces. International Journal for Numerical Methods in Engineering, 2007, 72, 72-94.	2.8	6
45	The effect of precipitates on the evolution of a martensitic phase boundary. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1151207-1151208.	0.2	1
46	Modeling and simulation of martensitic phase transitions with a triple point. Journal of the Mechanics and Physics of Solids, 2004, 52, 2057-2077.	4.8	12
47	A Bound on the Pseudospectrum for a Class of Non-normal SchrÃ¶dinger Operators. Applied Mathematics Research EXpress, 0, , .	1.0	1
48	Surface lattice Green's functions for high-entropy alloys. Modelling and Simulation in Materials Science and Engineering, 0, , .	2.0	0
49	Infinite pinning. Bulletin of the London Mathematical Society, 0, , .	0.8	0