Wulf G Dettmer

List of Publications by Year
in descending order

39 papers	1,461 citations	361388 20 h-index	414395 32 g-index
39 all docs	39 docs citations	39 times ranked	932 citing authors

#	Article	IF	Citations
1	New iterative and staggered solution schemes for incompressible fluid–structure interaction based on Dirichlet–Neumann coupling. International Journal for Numerical Methods in Engineering, 2021, 122, 5204-5235.	2.8	7
2	Flexible membrane structures for wave energy harvesting: A review of the developments, materials and computational modelling approaches. Renewable and Sustainable Energy Reviews, 2021, 151, 111478.	16.4	64
3	Accurate iteration-free mixed-stabilised formulation for laminar incompressible Navier–Stokes: Applications to fluid–structure interaction. Journal of Fluids and Structures, 2020, 97, 103077.	3.4	11
4	A partitioned scheme for adjoint shape sensitivity analysis of fluid–structure interactions involving non-matching meshes. Optimization Methods and Software, 2020, , 1-31.	2.4	0
5	A new family of projection schemes for the incompressible Navier–Stokes equations with control of high-frequency damping. Computer Methods in Applied Mechanics and Engineering, 2018, 339, 160-183.	6.6	6
6	Scaling/LER study of Si GAA nanowire FET using 3D finite element Monte Carlo simulations. Solid-State Electronics, 2017, 128, 17-24.	1.4	27
7	A stabilised immersed boundary method on hierarchical b-spline grids for fluid–rigid body interaction with solid–solid contact. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 242-269.	6.6	28
8	On the advantages of using the first-order generalised-alpha scheme for structural dynamic problems. Computers and Structures, 2017, 193, 226-238.	4.4	43
9	Scaling/LER study of Si GAA nanowire FET using 3D Finite Element Monte Carlo simulations. , 2016, , .		3
10	A stabilised immersed boundary method on hierarchical b-spline grids. Computer Methods in Applied Mechanics and Engineering, 2016, 311, 415-437.	6.6	32
11	Subdivision based mixed methods for isogeometric analysis of linear and nonlinear nearly incompressible materials. Computer Methods in Applied Mechanics and Engineering, 2016, 305, 241-270.	6.6	32
12	Anisotropic Quantum Corrections for 3-D Finite-Element Monte Carlo Simulations of Nanoscale Multigate Transistors. IEEE Transactions on Electron Devices, 2016, 63, 933-939.	3.0	16
13	A fictitious domain/distributed Lagrange multiplier based fluid–structure interaction scheme with hierarchical B-Spline grids. Computer Methods in Applied Mechanics and Engineering, 2016, 301, 1-27.	6.6	39
14	Anisotropic schrodinger equation quantum corrections for 3D Monte Carlo simulations of nanoscale multigate transistors. , 2015, , .		0
15	Yield surfaces of heterogeneous media with debonded inclusions. Engineering Computations, 2015, 32, 1802-1813.	1.4	4
16	NURBS based least–squares finite element methods for fluid and solid mechanics. International Journal for Numerical Methods in Engineering, 2015, 101, 521-539.	2.8	8
17	3-D Finite Element Monte Carlo Simulations of Scaled Si SOI FinFET With Different Cross Sections. IEEE Nanotechnology Magazine, 2015, 14, 93-100.	2.0	19
18	A multi-scale computational assessment of channel gating assumptions within the Meissner corpuscle. Journal of Biomechanics, 2015, 48, 73-80.	2.1	12

#	Article	IF	Citations
19	On the characterisation of elastic properties of long fibre composites using computational homogenisation. Computational Materials Science, 2014, 83, 149-157.	3.0	9
20	Quantum Corrections Based on the 2-D Schrödinger Equation for 3-D Finite Element Monte Carlo Simulations of Nanoscaled FinFETs. IEEE Transactions on Electron Devices, 2014, 61, 423-429.	3.0	35
21	3D Monte Carlo study of scaled SOI FinFETs using 2D Schr&#x00F6;dinger quantum corrections. , 2014, , .		1
22	A new staggered scheme for fluid–structure interaction. International Journal for Numerical Methods in Engineering, 2013, 93, 1-22.	2.8	67
23	The Zigzag wingbox for a span morphing wing. Aerospace Science and Technology, 2013, 28, 364-375.	4.8	52
24	Dynamic modelling and actuation of the adaptive torsion wing. Journal of Intelligent Material Systems and Structures, 2013, 24, 2045-2057.	2.5	14
25	Two-level Conceptual Design of Morphing Wings. , 2013, , .		5
26	Effect of Span-morphing on the Flight Modes, Stability & Control. , 2013, , .		2
27	Micropolar hyper–elastoplasticity: constitutive model, consistent linearization, and simulation of 3D scale effects. International Journal for Numerical Methods in Engineering, 2012, 91, 39-66.	2.8	13
28	Micropolar hyperelasticity: constitutive model, consistent linearization and simulation of 3D scale effects. Computational Mechanics, 2012, 50, 383-396.	4.0	15
29	Conceptual Modeling of an Adaptive Torsion Wing Structure. , 2011, , .		10
30	Analysis of the block Gauss–Seidel solution procedure for a strongly coupled model problem with reference to fluid–structure interaction. International Journal for Numerical Methods in Engineering, 2009, 78, 757-778.	2.8	67
31	A sub-stepping scheme for multi-scale analysis of solids. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1006-1016.	6.6	48
32	On the coupling between fluid flow and mesh motion in the modelling of fluid–structure interaction. Computational Mechanics, 2008, 43, 81-90.	4.0	86
33	An adaptive remeshing strategy for flows with moving boundaries and fluid–structure interaction. International Journal for Numerical Methods in Engineering, 2007, 71, 1009-1050.	2.8	59
34	A Fully Implicit Computational Strategy for Strongly Coupled Fluid–Solid Interaction. Archives of Computational Methods in Engineering, 2007, 14, 205-247.	10.2	42
35	A computational framework for free surface fluid flows accounting for surface tension. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3038-3071.	6.6	50
36	A computational framework for fluid–rigid body interaction: Finite element formulation and applications. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 1633-1666.	6.6	99

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37	A computational framework for fluid–structure interaction: Finite element formulation and applications. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5754-5779.	6.6	222
38	On the theoretical and numerical modelling of Armstrong–Frederick kinematic hardening in the finite strain regime. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 87-116.	6.6	149
39	An analysis of the time integration algorithms for the finite element solutions of incompressible Navier–Stokes equations based on a stabilised formulation. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 1177-1226.	6.6	65