

Stéphane P.A. BORDAS

List of Publications by Year in descending order

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341
papers

20,096
citations

10956

71
h-index

14702

127
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356
all docs

356
docs citations

356
times ranked

7617
citing authors

#	ARTICLE	IF	CITATIONS
1	Stress diffusion interactions in an elastoplastic medium in the presence of geometric discontinuity. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 1570-1586.	1.5	1
2	Design and analysis of O-ring polymer gasket for flanged bolted joints in seawater piping using i>I±</i>-FEM. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2022, 23, 81-97.	1.4	1
3	Electromechanical properties identification for groups of piezoelectric energy harvester based on Bayesian inference. <i>Mechanical Systems and Signal Processing</i> , 2022, 162, 108034.	4.4	11
4	Bi-material topology optimization for fully coupled structural-acoustic systems with isogeometric FEMâ€“BEM. <i>Engineering Analysis With Boundary Elements</i> , 2022, 135, 182-195.	2.0	35
5	Cortex tissue relaxation and slow to medium load rates dependency can be captured by a two-phase flow poroelastic model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 126, 104952.	1.5	8
6	A Bayesian multiscale CNN framework to predict local stress fields in structures with microscale features. <i>Computational Mechanics</i> , 2022, 69, 733-766.	2.2	31
7	Application of discrete shear quadrilateral element for static bending, free vibration and buckling analysis of functionally graded material plate. <i>Composite Structures</i> , 2022, 284, 115130.	3.1	9
8	An analytical solution for the static bending of smart laminated composite and functionally graded plates with and without porosity. <i>Archive of Applied Mechanics</i> , 2022, 92, 903-931.	1.2	4
9	Fracture analysis of cracked magneto-electro-elastic functionally graded materials using scaled boundary finite element method. <i>Theoretical and Applied Fracture Mechanics</i> , 2022, 118, 103228.	2.1	12
10	Energy storage and stressâ€“strain characteristics of a prosthetic foot: <i>a priori</i> design and analysis with experiments. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2022, 38, e3579.	1.0	1
11	A cell-based smoothed finite element method for finite elasticity. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2022, 23, 536-550.	1.4	4
12	Adaptive enriched geometry independent field approximation for 2D time-harmonic acoustics. <i>Computers and Structures</i> , 2022, 263, 106728.	2.4	14
13	Inverse deformation analysis: an experimental and numerical assessment using the FEniCS Project. <i>Engineering With Computers</i> , 2022, 38, 4099-4113.	3.5	9
14	Colossal Enhancement of Atomic Force Response in van der Waals Materials Arising from Many-Body Electronic Correlations. <i>Physical Review Letters</i> , 2022, 128, 106101.	2.9	14
15	Seismic Performance of Kiewitt-Sunflower Single Layer Spherical Reticulated Shells. <i>KSCE Journal of Civil Engineering</i> , 2022, 26, 2354-2368.	0.9	1
16	Distributed PINN for Linear Elasticity â€” A Unified Approach for Smooth, Singular, Compressible and Incompressible Media. <i>International Journal of Computational Methods</i> , 2022, 19, .	0.8	3
17	A sample-efficient deep learning method for multivariate uncertainty qualification of acousticâ€“vibration interaction problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 393, 114784.	3.4	36
18	An adapted deflated conjugate gradient solver for robust extended/generalised finite element solutions of large scale, 3D crack propagation problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 395, 114937.	3.4	6

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19	Adaptive modelling of dynamic brittle fracture - a combined phase field regularized cohesive zone model and scaled boundary finite element approach. <i>International Journal of Fracture</i> , 2022, 236, 87-108.	1.1	12
20	Multi-frequency acoustic topology optimization of sound-absorption materials with isogeometric boundary element methods accelerated by frequency-decoupling and model order reduction techniques. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 395, 114997.	3.4	47
21	A phase-field cohesive zone model integrated with cell-based smoothed finite element method for quasi-brittle fracture simulations of concrete at mesoscale. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 396, 115074.	3.4	19
22	Oncology and mechanics: Landmark studies and promising clinical applications. <i>Advances in Applied Mechanics</i> , 2022, , 513-571.	1.4	2
23	Probabilistic deep learning for real-time large deformation simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 398, 115307.	3.4	33
24	On the H^1 Conforming Virtual Element Method for Time Dependent Stokes Equation. <i>Mathematics in Computer Science</i> , 2021, 15, 135-154.	0.2	4
25	Application of Adaptive Phase-Field Scaled Boundary Finite Element Method for Functionally Graded Materials. <i>International Journal of Computational Methods</i> , 2021, 18, 2041007.	0.8	3
26	Adaptive phase field modelling of crack propagation in orthotropic functionally graded materials. <i>Defence Technology</i> , 2021, 17, 185-195.	2.1	30
27	An adaptive scaled boundary finite element method for contact analysis. <i>European Journal of Mechanics, A/Solids</i> , 2021, 86, 104180.	2.1	8
28	Cell-based smoothed finite element method for modelling interfacial cracks with non-matching grids. <i>Engineering Fracture Mechanics</i> , 2021, 242, 107476.	2.0	9
29	Interdisciplinary Approaches to COVID-19. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1318, 923-936.	0.8	11
30	Bayesian model uncertainty quantification for hyperelastic soft tissue models. <i>Data-Centric Engineering</i> , 2021, 2, .	1.2	11
31	Robust adaptive topology optimization of porous infills under loading uncertainties. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2253-2266.	1.7	13
32	Distributed Prediction of Unsafe Reconfiguration Scenarios of Modular Robotic Programmable Matter. <i>IEEE Transactions on Robotics</i> , 2021, 37, 2226-2233.	7.3	9
33	Non Uniform Rational B-Splines and Lagrange approximations for time-harmonic acoustic scattering: accuracy and absorbing boundary conditions. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2021, 27, 263-294.	1.4	10
34	Modeling Fracture in Straight Fiber and Tow-Steered Fiber Laminated Composites – A Phase Field Approach. <i>Materials Horizons</i> , 2021, , 387-410.	0.3	0
35	A refinement indicator for adaptive quasicontinuum approaches for structural lattices. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2498-2527.	1.5	6
36	Robust modelling of implicit interfaces by the scaled boundary finite element method. <i>Engineering Analysis With Boundary Elements</i> , 2021, 124, 266-286.	2.0	1

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37	A cut finite element method for spatially resolved energy metabolism models in complex neuro-cell morphologies with minimal remeshing. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2021, 8, .	0.7	9
38	Uncertainty quantification of spatially uncorrelated loads with a reduced-order stochastic isogeometric method. <i>Computational Mechanics</i> , 2021, 67, 1255-1271.	2.2	24
39	±-Finite Element Method for Frictionless and Frictional Contact Including Large Deformation. <i>International Journal of Computational Methods</i> , 2021, 18, .	0.8	4
40	Scaled Boundary Finite Element Method for Mid-Frequency Acoustics of Cavities. <i>Journal of Theoretical and Computational Acoustics</i> , 2021, 29, 2150001.	0.5	2
41	Crack detection in Mindlin-Reissner plates under dynamic loads based on fusion of data and models. <i>Computers and Structures</i> , 2021, 246, 106475.	2.4	11
42	High Resolution Micro-Computed Tomography Reveals a Network of Collagen Channels in the Body Region of the Knee Meniscus. <i>Annals of Biomedical Engineering</i> , 2021, 49, 2273-2281.	1.3	15
43	A non-intrusive stochastic phase field method for crack propagation in functionally graded materials. <i>Acta Mechanica</i> , 2021, 232, 2555-2574.	1.1	18
44	Investigation of the chemical vapor deposition of Cu from copper amidinate through data driven efficient CFD modelling. <i>Computers and Chemical Engineering</i> , 2021, 149, 107289.	2.0	8
45	A unified algorithm for the selection of collocation stencils for convex, concave, and singular problems. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 4292-4312.	1.5	12
46	The Functionally Grading Elastic and Viscoelastic Properties of the Body Region of the Knee Meniscus. <i>Annals of Biomedical Engineering</i> , 2021, 49, 2421-2429.	1.3	16
47	Error estimation for the polygonal finite element method for smooth and singular linear elasticity. <i>Computers and Mathematics With Applications</i> , 2021, 92, 109-119.	1.4	7
48	A hyper-reduction method using adaptivity to cut the assembly costs of reduced order models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 380, 113723.	3.4	8
49	Digital twinning of Cellular Capsule Technology: Emerging outcomes from the perspective of porous media mechanics. <i>PLoS ONE</i> , 2021, 16, e0254512.	1.1	10
50	Simulation of gas-dynamic, pressure surges and adiabatic compression phenomena in geometrically complex respirator oxygen valves. <i>Thermal Science and Engineering Progress</i> , 2021, 24, 100906.	1.3	1
51	Smoothed-strain approach to topology optimization “ a numerical study for optimal control parameters. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 1267-1289.	1.5	3
52	Static Stability Analysis of Single-Layer Reticulated Spherical Shell with Kiewitt-Sunflower Type. <i>International Journal of Steel Structures</i> , 2021, 21, 1859-1877.	0.6	4
53	An open-source FEniCS-based framework for hyperelastic parameter estimation from noisy full-field data: Application to heterogeneous soft tissues. <i>Computers and Structures</i> , 2021, 255, 106620.	2.4	27
54	Circumferential crack modeling of thin cylindrical shells in modal deformation. <i>European Journal of Mechanics, A/Solids</i> , 2021, 90, 104360.	2.1	3

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55	Treatment of multiple input uncertainties using the scaled boundary finite element method. Applied Mathematical Modelling, 2021, 99, 538-554.	2.2	5
56	A rigged model of the breast for preoperative surgical planning. Journal of Biomechanics, 2021, 128, 110645.	0.9	10
57	Bubble-Enriched Smoothed Finite Element Methods for Nearly-Incompressible Solids. CMES - Computer Modeling in Engineering and Sciences, 2021, 127, 411-436.	0.8	0
58	The Mixed Virtual Element Method for the Richards Equation. SEMA SIMAI Springer Series, 2021, , 259-297.	0.4	0
59	The Human Meniscus Behaves as a Functionally Graded Fractional Porous Medium under Confined Compression Conditions. Applied Sciences (Switzerland), 2021, 11, 9405.	1.3	11
60	A Tutorial on Bayesian Inference to Identify Material Parameters in Solid Mechanics. Archives of Computational Methods in Engineering, 2020, 27, 361-385.	6.0	83
61	Calipso: physics-based image and video editing through CAD model proxies. Visual Computer, 2020, 36, 211-226.	2.5	6
62	Quantifying discretization errors for soft tissue simulation in computer assisted surgery: A preliminary study. Applied Mathematical Modelling, 2020, 77, 709-723.	2.2	40
63	Taylor-Series Expansion Based Numerical Methods: A Primer, Performance Benchmarking and New Approaches for Problems with Non-smooth Solutions. Archives of Computational Methods in Engineering, 2020, 27, 1465-1513.	6.0	20
64	Simulation of hyperelastic materials in real-time using deep learning. Medical Image Analysis, 2020, 59, 101569.	7.0	56
65	On the application of polygonal finite element method for Stokes flow " A comparison between equal order and different order approximation. Computer Aided Geometric Design, 2020, 77, 101813.	0.5	4
66	A combined virtual element method and the scaled boundary finite element method for linear elastic fracture mechanics. Engineering Analysis With Boundary Elements, 2020, 113, 9-16.	2.0	17
67	Extension of the scaled boundary finite element method to treat implicitly defined interfaces without enrichment. Computers and Structures, 2020, 229, 106159.	2.4	7
68	A Stochastic Galerkin Cell-based Smoothed Finite Element Method (SGCS" FEM). International Journal of Computational Methods, 2020, 17, 1950054.	0.8	3
69	Resolving high frequency issues via proper orthogonal decomposition based dynamic isogeometric analysis for structures with dissimilar materials. Computer Methods in Applied Mechanics and Engineering, 2020, 359, 112753.	3.4	14
70	Phase-field modeling of fracture. Advances in Applied Mechanics, 2020, 53, 1-183.	1.4	241
71	Damage-Plastic Constitutive Model of Thin-Walled Circular Steel Tubes for Space Structures. Journal of Engineering Mechanics - ASCE, 2020, 146, 04020131.	1.6	3
72	Adaptive analysis using scaled boundary finite element method in 3D. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113374.	3.4	20

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73	Roll-over shape of a prosthetic foot: a finite element evaluation and experimental validation. <i>Medical and Biological Engineering and Computing</i> , 2020, 58, 2259-2270.	1.6	5
74	Seamless integration of computer-aided geometric modeling and acoustic simulation: Isogeometric boundary element methods based on Catmull-Clark subdivision surfaces. <i>Advances in Engineering Software</i> , 2020, 149, 102879.	1.8	43
75	An nth high order perturbation-based stochastic isogeometric method and implementation for quantifying geometric uncertainty in shell structures. <i>Advances in Engineering Software</i> , 2020, 148, 102866.	1.8	26
76	A Developed Damage Constitutive Model for Circular Steel Tubes of Reticulated Shells. <i>International Journal of Structural Stability and Dynamics</i> , 2020, 20, 2050106.	1.5	4
77	Machine learning approaches to identify and design low thermal conductivity oxides for thermoelectric applications. <i>Data-Centric Engineering</i> , 2020, 1, .	1.2	16
78	An open source pipeline for design of experiments for hyperelastic models of the skin with applications to keloids. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 112, 103999.	1.5	15
79	Isogeometric shape optimization of an acoustic horn using the teaching-learning-based optimization (TLBO) algorithm. <i>Computer Aided Geometric Design</i> , 2020, 80, 101881.	0.5	19
80	An efficient forward propagation of multiple random fields using a stochastic Galerkin scaled boundary finite element method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 367, 112994.	3.4	5
81	Parametrized reduced order modeling for cracked solids. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 4537-4565.	1.5	15
82	Isogeometric analysis of thin Reissner-Mindlin shells: locking phenomena and B-bar method. <i>Computational Mechanics</i> , 2020, 65, 1323-1341.	2.2	23
83	Constrained stochastic state estimation of deformable 1D objects: Application to single-view 3D reconstruction of catheters with radio-opaque markers. <i>Computerized Medical Imaging and Graphics</i> , 2020, 81, 101702.	3.5	8
84	A MINI element over star convex polytopes. <i>Finite Elements in Analysis and Design</i> , 2020, 172, 103368.	1.7	1
85	Acoustic topology optimization of sound absorbing materials directly from subdivision surfaces with isogeometric boundary element methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112806.	3.4	83
86	Generalized quasicontinuum modeling of metallic lattices with geometrical and material nonlinearity and variability. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 366, 112878.	3.4	7
87	From quantum to continuum mechanics in the delamination of atomically-thin layers from substrates. <i>Nature Communications</i> , 2020, 11, 1651.	5.8	21
88	<p>Robotically Steered Needles: A Survey of Neurosurgical Applications and Technical Innovations<p>. <i>Robotic Surgery (Auckland)</i> , 2020, Volume 7, 1-23.	1.3	12
89	Application of Smooth Particle Hydrodynamics Method for Modelling Blood Flow with Thrombus Formation. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2020, 122, 831-862.	0.8	8
90	Linear smoothed finite element method for quasi-incompressible hyperelastic media. <i>International Journal of Advances in Engineering Sciences and Applied Mathematics</i> , 2020, 12, 158-170.	0.7	2

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91	Autonomous model-based assessment of mechanical failures of reconfigurable modular robots with a Conjugate Gradient solver. , 2020, , .		2
92	A FEniCS implementation of the phase field method for quasi-static brittle fracture. <i>Frontiers of Structural and Civil Engineering</i> , 2019, 13, 380-396.	1.2	47
93	Structural shape optimization of three dimensional acoustic problems with isogeometric boundary element methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 355, 926-951.	3.4	111
94	Adaptive smoothed stable extended finite element method for weak discontinuities for finite elasticity. <i>European Journal of Mechanics, A/Solids</i> , 2019, 78, 103824.	2.1	7
95	Stochastic Vibration Analysis of Functionally Graded Plates with Material Randomness Using Cell-Based Smoothed Discrete Shear Gap Method. <i>International Journal of Structural Stability and Dynamics</i> , 2019, 19, 1950037.	1.5	14
96	Fracture mechanism simulation of inhomogeneous anisotropic rocks by extended finite element method. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 104, 102359.	2.1	24
97	Coupled molecular-dynamics and finite-element-method simulations for the kinetics of particles subjected to field-mediated forces. <i>Physical Review E</i> , 2019, 99, 063307.	0.8	2
98	Weak and strong form meshless methods for linear elastic problem under fretting contact conditions. <i>Tribology International</i> , 2019, 138, 392-402.	3.0	21
99	A new locking-free polygonal plate element for thin and thick plates based on Reissner-Mindlin plate theory and assumed shear strain fields. <i>Computers and Structures</i> , 2019, 220, 32-42.	2.4	18
100	Scaled boundary finite element method for compressible and nearly incompressible elasticity over arbitrary polytopes. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 119, 1379-1394.	1.5	2
101	Multiscale modeling of material failure: Theory and computational methods. <i>Advances in Applied Mechanics</i> , 2019, 52, 1-103.	1.4	41
102	A gradient weighted extended finite element method (GW-XFEM) for fracture mechanics. <i>Acta Mechanica</i> , 2019, 230, 2385-2398.	1.1	20
103	An implicit boundary approach for viscous compressible high Reynolds flows using a hybrid remeshed particle hydrodynamics method. <i>Journal of Computational Physics</i> , 2019, 391, 347-364.	1.9	9
104	A unified polygonal locking-free thin/thick smoothed plate element. <i>Composite Structures</i> , 2019, 219, 147-157.	3.1	26
105	The influence of fracture geometry variation on non-Darcy flow in fractures under confining stresses. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 113, 59-71.	2.6	98
106	A simple and robust computational homogenization approach for heterogeneous particulate composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 349, 45-90.	3.4	16
107	A unified enrichment approach addressing blending and conditioning issues in enriched finite elements. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 349, 673-700.	3.4	32
108	Model I cohesive zone models of different rank coals. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 115, 145-156.	2.6	32

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109	Model order reduction accelerated Monte Carlo stochastic isogeometric method for the analysis of structures with high-dimensional and independent material uncertainties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 349, 266-284.	3.4	32
110	A one point integration rule over star convex polytopes. <i>Computers and Structures</i> , 2019, 215, 43-64.	2.4	11
111	Identifying elastoplastic parameters with Bayes's theorem considering output error, input error and model uncertainty. <i>Probabilistic Engineering Mechanics</i> , 2019, 55, 28-41.	1.3	66
112	Improving the conditioning of XFEM/GFEM for fracture mechanics problems through enrichment quasi-orthogonalization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 1051-1073.	3.4	68
113	A parallel and efficient multi-split XFEM for 3-D analysis of heterogeneous materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 347, 365-401.	3.4	29
114	B-Spline FEM for Time-Harmonic Acoustic Scattering and Propagation. <i>Journal of Theoretical and Computational Acoustics</i> , 2019, 27, 1850059.	0.5	18
115	Deep neural network with high-order neuron for the prediction of foamed concrete strength. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2019, 34, 316-332.	6.3	167
116	Corotational cut finite element method for real-time surgical simulation: Application to needle insertion simulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 345, 183-211.	3.4	35
117	Adaptivity driven by recovery and residual-based error estimators for PHT-splines applied to time-harmonic acoustics. <i>Computers and Mathematics With Applications</i> , 2019, 77, 2369-2395.	1.4	44
118	Modeling crack propagation in variable stiffness composite laminates using the phase field method. <i>Composite Structures</i> , 2019, 209, 424-433.	3.1	53
119	The elastic properties of composites reinforced by a transversely isotropic random fibre-network. <i>Composite Structures</i> , 2019, 208, 33-44.	3.1	12
120	Classification of states and model order reduction of large scale Chemical Vapor Deposition processes with solution multiplicity. <i>Computers and Chemical Engineering</i> , 2019, 121, 148-157.	2.0	15
121	Linear smoothed extended finite element method for fatigue crack growth simulations. <i>Engineering Fracture Mechanics</i> , 2019, 206, 551-564.	2.0	49
122	Advances in Carbon Based Nanomaterials for Bio-Medical Applications. <i>Current Medicinal Chemistry</i> , 2019, 26, 6851-6877.	1.2	82
123	Controlling the error on target motion through real-time mesh adaptation: Applications to deep brain stimulation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2958.	1.0	29
124	Multiple crack detection in 3D using a stable XFEM and global optimization. <i>Computational Mechanics</i> , 2018, 62, 835-852.	2.2	54
125	Scaled boundary polygons for linear elastodynamics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 333, 238-256.	3.4	27
126	A scaled boundary finite element formulation for poroelasticity. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 114, 905-929.	1.5	21

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127	Weakening the tight coupling between geometry and simulation in isogeometric analysis: From subâ€• and superâ€•geometric analysis to Geometryâ€•Independent Field approximation (GIFT). International Journal for Numerical Methods in Engineering, 2018, 114, 1131-1159.	1.5	95
128	Variable stiffness laminated composite shells â€• Free vibration characteristics based on higher-order structural theory. Composite Structures, 2018, 188, 407-414.	3.1	34
129	Quadratic serendipity finite elements over convex polyhedra. International Journal for Numerical Methods in Engineering, 2018, 113, 109-129.	1.5	14
130	Real-Time Error Control for Surgical Simulation. IEEE Transactions on Biomedical Engineering, 2018, 65, 596-607.	2.5	52
131	Threeâ€•dimensional remeshed smoothed particle hydrodynamics for the simulation of isotropic turbulence. International Journal for Numerical Methods in Fluids, 2018, 86, 1-19.	0.9	10
132	Stable 3D XFEM/vector level sets for nonâ€•planar 3D crack propagation and comparison of enrichment schemes. International Journal for Numerical Methods in Engineering, 2018, 113, 252-276.	1.5	61
133	A review of the scaled boundary finite element method for two-dimensional linear elastic fracture mechanics. Engineering Fracture Mechanics, 2018, 187, 45-73.	2.0	120
134	Minimum energy multiple crack propagation. Part-II: Discrete solution with XFEM. Engineering Fracture Mechanics, 2018, 191, 225-256.	2.0	58
135	Minimum energy multiple crack propagation. Part I: Theory and state of the art review. Engineering Fracture Mechanics, 2018, 191, 205-224.	2.0	69
136	Constructing IGA-suitable planar parameterization from complex CAD boundary by domain partition and global/local optimization. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 175-200.	3.4	86
137	On the effect of grains interface parameters on the macroscopic properties of polycrystalline materials. Computers and Structures, 2018, 196, 355-368.	2.4	4
138	XFEM modeling of multistage hydraulic fracturing in anisotropic shale formations. Journal of Petroleum Science and Engineering, 2018, 162, 801-812.	2.1	51
139	Minimum energy multiple crack propagation. Part III: XFEM computer implementation and applications. Engineering Fracture Mechanics, 2018, 191, 257-276.	2.0	72
140	Bayesian inference to identify parameters in viscoelasticity. Mechanics of Time-Dependent Materials, 2018, 22, 221-258.	2.3	65
141	A Mass Conservative Kalman Filter Algorithm for Computational Thermo-Fluid Dynamics. Materials, 2018, 11, 2222.	1.3	6
142	Optimal Numerical Integration Schemes for a Family of Polygonal Finite Elements with Schwarzâ€•Christoffel Conformal Mapping. International Journal for Computational Methods in Engineering Science and Mechanics, 2018, 19, 283-304.	1.4	7
143	Marker-Based Registration for Large Deformations - Application to Open Liver Surgery. , 2018, , .		17
144	Simple and extensible plate and shell finite element models through automatic code generation tools. Computers and Structures, 2018, 209, 163-181.	2.4	40

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145	3D meso-scale modelling of foamed concrete based on X-ray Computed Tomography. <i>Construction and Building Materials</i> , 2018, 188, 583-598.	3.2	83
146	Skew-symmetric Nitsche's formulation in isogeometric analysis: Dirichlet and symmetry conditions, patch coupling and frictionless contact. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 188-220.	3.4	49
147	A volume-averaged nodal projection method for the Reissner-Mindlin plate model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 827-850.	3.4	7
148	What makes Data Science different? A discussion involving Statistics 2.0 and Computational Sciences. <i>International Journal of Data Science and Analytics</i> , 2018, 6, 167-175.	2.4	33
149	Adaptive Isogeometric analysis for plate vibrations: An efficient approach of local refinement based on hierarchical a posteriori error estimation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 342, 251-286.	3.4	42
150	Quantifying the uncertainty in a hyperelastic soft tissue model with stochastic parameters. <i>Applied Mathematical Modelling</i> , 2018, 62, 86-102.	2.2	67
151	Dynamic response of viscoelastic functionally graded hollow cylinder subjected to thermo-mechanical loads. <i>Composite Structures</i> , 2018, 201, 414-422.	3.1	9
152	Isogeometric boundary element methods for three dimensional static fracture and fatigue crack growth. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 316, 151-185.	3.4	181
153	Numerical evaluation of buckling behaviour induced by compression on patch-repaired composites. <i>Composite Structures</i> , 2017, 168, 582-596.	3.1	16
154	Programming the material point method in Julia. <i>Advances in Engineering Software</i> , 2017, 105, 17-29.	1.8	20
155	On a family of convected particle domain interpolations in the material point method. <i>Finite Elements in Analysis and Design</i> , 2017, 126, 50-64.	1.7	45
156	Error-controlled adaptive extended finite element method for 3D linear elastic crack propagation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 318, 319-348.	3.4	57
157	Strain smoothing for compressible and nearly-incompressible finite elasticity. <i>Computers and Structures</i> , 2017, 182, 540-555.	2.4	31
158	An implicit potential method along with a meshless technique for incompressible fluid flows for regular and irregular geometries in 2D and 3D. <i>Engineering Analysis With Boundary Elements</i> , 2017, 77, 97-111.	2.0	11
159	Accelerating Monte Carlo estimation with derivatives of high-level finite element models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 318, 917-936.	3.4	53
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