

Glaucio H Paulino

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227
papers

10,708
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56
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92
g-index

234
ext. papers

12,369
ext. citations

4.1
avg, IF

7
L-index

#	Paper	IF	Citations
227	Cohesive Zone Models: A Critical Review of Traction-Separation Relationships Across Fracture Surfaces. <i>Applied Mechanics Reviews</i> , 2011 , 64,	8.6	379
226	PolyMesher: a general-purpose mesh generator for polygonal elements written in Matlab. <i>Structural and Multidisciplinary Optimization</i> , 2012 , 45, 309-328	3.6	328
225	Origami tubes assembled into stiff, yet reconfigurable structures and metamaterials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 12321-6	11.5	306
224	A unified potential-based cohesive model of mixed-mode fracture. <i>Journal of the Mechanics and Physics of Solids</i> , 2009 , 57, 891-908	5	303
223	Finite element evaluation of mixed mode stress intensity factors in functionally graded materials. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 53, 1903-1935	2.4	259
222	Bridging topology optimization and additive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2016 , 53, 175-192	3.6	253
221	A bilinear cohesive zone model tailored for fracture of asphalt concrete considering viscoelastic bulk material. <i>Engineering Fracture Mechanics</i> , 2006 , 73, 2829-2848	4.2	250
220	On the Virtual Element Method for three-dimensional linear elasticity problems on arbitrary polyhedral meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014 , 282, 132-160	5.7	233
219	PolyTop: a Matlab implementation of a general topology optimization framework using unstructured polygonal finite element meshes. <i>Structural and Multidisciplinary Optimization</i> , 2012 , 45, 329-357	3.6	160
218	Transient heat conduction in homogeneous and non-homogeneous materials by the Laplace transform Galerkin boundary element method. <i>Engineering Analysis With Boundary Elements</i> , 2002 , 26, 119-132	2.6	154
217	Concrete fracture prediction using bilinear softening. <i>Cement and Concrete Composites</i> , 2007 , 29, 300-312	2.6	149
216	Cohesive zone modeling of dynamic failure in homogeneous and functionally graded materials. <i>International Journal of Plasticity</i> , 2005 , 21, 1195-1254	7.6	149
215	Modeling bamboo as a functionally graded material: lessons for the analysis of affordable materials. <i>Journal of Materials Science</i> , 2006 , 41, 6991-7004	4.3	141
214	Computational implementation of the PPR potential-based cohesive model in ABAQUS: Educational perspective. <i>Engineering Fracture Mechanics</i> , 2012 , 93, 239-262	4.2	140
213	Mixed-mode fracture of orthotropic functionally graded materials using finite elements and the modified crack closure method. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 1557-1586	4.2	139
212	Simulation of Crack Propagation in Asphalt Concrete Using an Intrinsic Cohesive Zone Model. <i>Journal of Engineering Mechanics - ASCE</i> , 2006 , 132, 1215-1223	2.4	136
211	Transient thermal stress analysis of an edge crack in a functionally graded material. <i>International Journal of Fracture</i> , 2001 , 107, 73-98	2.3	135

210	The simple boundary element method for transient heat conduction in functionally graded materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 4511-4539	5.7	131
209	T-stress, mixed-mode stress intensity factors, and crack initiation angles in functionally graded materials: a unified approach using the interaction integral method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003 , 192, 1463-1494	5.7	129
208	Unraveling metamaterial properties in zigzag-base folded sheets. <i>Science Advances</i> , 2015 , 1, e1500224	14.3	126
207	Large-scale topology optimization using preconditioned Krylov subspace methods with recycling. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 69, 2441-2468	2.4	125
206	A computational paradigm for multiresolution topology optimization (MTOPT). <i>Structural and Multidisciplinary Optimization</i> , 2010 , 41, 525-539	3.6	124
205	Stress-intensity factors for surface cracks in functionally graded materials under mode-I thermomechanical loading. <i>International Journal of Solids and Structures</i> , 2004 , 41, 1081-1118	3.1	124
204	Cohesive fracture modeling of elastic-plastic crack growth in functionally graded materials. <i>Engineering Fracture Mechanics</i> , 2003 , 70, 1885-1912	4.2	122
203	Polygonal finite elements for topology optimization: A unifying paradigm. <i>International Journal for Numerical Methods in Engineering</i> , 2010 , 82, 671-698	2.4	116
202	Cohesive fracture model for functionally graded fiber reinforced concrete. <i>Cement and Concrete Research</i> , 2010 , 40, 956-965	10.3	107
201	Consistent Formulations of the Interaction Integral Method for Fracture of Functionally Graded Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2005 , 72, 351-364	2.7	105
200	The interaction integral for fracture of orthotropic functionally graded materials: evaluation of stress intensity factors. <i>International Journal of Solids and Structures</i> , 2003 , 40, 3967-4001	3.1	105
199	Extrinsic cohesive modelling of dynamic fracture and microbranching instability in brittle materials. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 72, 893-923	2.4	102
198	Bar and hinge models for scalable analysis of origami. <i>International Journal of Solids and Structures</i> , 2017 , 124, 26-45	3.1	100
197	Connecting architecture and engineering through structural topology optimization. <i>Engineering Structures</i> , 2014 , 59, 716-726	4.7	97
196	An accurate scheme for mixed-mode fracture analysis of functionally graded materials using the interaction integral and micromechanics models. <i>International Journal for Numerical Methods in Engineering</i> , 2003 , 58, 1457-1497	2.4	92
195	Direct Extraction of Cohesive Fracture Properties from Digital Image Correlation: A Hybrid Inverse Technique. <i>Experimental Mechanics</i> , 2011 , 51, 143-163	2.6	86
194	Integral equations with hypersingular kernels: theory and applications to fracture mechanics. <i>International Journal of Engineering Science</i> , 2003 , 41, 683-720	5.7	84
193	Application of layout and topology optimization using pattern gradation for the conceptual design of buildings. <i>Structural and Multidisciplinary Optimization</i> , 2011 , 43, 165-180	3.6	82

192	Mode I fracture of adhesive joints using tailored cohesive zone models. <i>International Journal of Fracture</i> , 2009 , 157, 193-204	2.3	78
191	Symmetric Galerkin boundary integral formulation for interface and multi-zone problems. <i>International Journal for Numerical Methods in Engineering</i> , 1997 , 40, 3085-3101	2.4	77
190	Topology optimization with manufacturing constraints: A unified projection-based approach. <i>Advances in Engineering Software</i> , 2016 , 100, 97-112	3.6	77
189	A new approach to compute T-stress in functionally graded materials by means of the interaction integral method. <i>Engineering Fracture Mechanics</i> , 2004 , 71, 1907-1950	4.2	75
188	Nonlinear mechanics of non-rigid origami: an efficient computational approach. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20170348	2.4	74
187	Assessment of Existing Micro-mechanical Models for Asphalt Mastics Considering Viscoelastic Effects. <i>Road Materials and Pavement Design</i> , 2008 , 9, 31-57	2.6	70
186	Dynamic stress intensity factors for homogeneous and smoothly heterogeneous materials using the interaction integral method. <i>International Journal of Solids and Structures</i> , 2006 , 43, 4830-4866	3.1	70
185	GRAND \square Ground structure based topology optimization for arbitrary 2D domains using MATLAB. <i>Structural and Multidisciplinary Optimization</i> , 2014 , 50, 861-882	3.6	68
184	Topological optimization for designing patient-specific large craniofacial segmental bone replacements. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 13222-7	11.5	68
183	Determination of the kink point in the bilinear softening model for concrete. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 3806-3818	4.2	68
182	GRAND3 \square Ground structure based topology optimization for arbitrary 3D domains using MATLAB. <i>Structural and Multidisciplinary Optimization</i> , 2015 , 52, 1161-1184	3.6	67
181	Integration of singular enrichment functions in the generalized/extended finite element method for three-dimensional problems. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 78, 1220-1257	2.4	66
180	Mixed-mode J-integral formulation and implementation using graded elements for fracture analysis of nonhomogeneous orthotropic materials. <i>Mechanics of Materials</i> , 2003 , 35, 107-128	3.3	66
179	Improving multiresolution topology optimization via multiple discretizations. <i>International Journal for Numerical Methods in Engineering</i> , 2012 , 92, 507-530	2.4	65
178	Designing patient-specific 3D printed craniofacial implants using a novel topology optimization method. <i>Medical and Biological Engineering and Computing</i> , 2016 , 54, 1123-35	3.1	64
177	Multi-actuated functionally graded piezoelectric micro-tools design: A multiphysics topology optimization approach. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 77, 301-336	2.4	61
176	Untethered control of functional origami microrobots with distributed actuation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 24096-24101	11.5	61
175	Computation of Mixed-Mode Stress Intensity Factors for Cracks in Three-Dimensional Functionally Graded Solids. <i>Journal of Engineering Mechanics - ASCE</i> , 2006 , 132, 1-15	2.4	60

174	Green's function for a two-dimensional exponentially graded elastic medium. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 1689-1706	2.4	60
173	Single-Loop System Reliability-Based Design Optimization Using Matrix-Based System Reliability Method: Theory and Applications. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2010 , 132,	3	56
172	Correspondence Principle in Viscoelastic Functionally Graded Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2001 , 68, 129-132	2.7	56
171	A compact adjacency-based topological data structure for finite element mesh representation. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 64, 1529-1556	2.4	55
170	Polygonal finite elements for incompressible fluid flow. <i>International Journal for Numerical Methods in Fluids</i> , 2014 , 74, 134-151	1.9	54
169	Adaptive mesh refinement and coarsening for cohesive zone modeling of dynamic fracture. <i>International Journal for Numerical Methods in Engineering</i> , 2012 , 92, 1-35	2.4	54
168	A growing library of three-dimensional cohesive elements for use in ABAQUS. <i>Engineering Fracture Mechanics</i> , 2014 , 126, 190-216	4.2	53
167	Programmable Deployment of Tensegrity Structures by Stimulus-Responsive Polymers. <i>Scientific Reports</i> , 2017 , 7, 3511	4.9	53
166	Honeycomb Wachspress finite elements for structural topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2009 , 37, 569-583	3.6	53
165	Single-loop system reliability-based topology optimization considering statistical dependence between limit-states. <i>Structural and Multidisciplinary Optimization</i> , 2011 , 44, 593-611	3.6	52
164	Topology optimization using polytopes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 293, 411-430	5.7	51
163	Addressing integration error for polygonal finite elements through polynomial projections: A patch test connection. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014 , 24, 1701-1727	3.5	51
162	A general topology-based framework for adaptive insertion of cohesive elements in finite element meshes. <i>Engineering With Computers</i> , 2008 , 24, 59-78	4.5	51
161	On Fracture Criteria for Mixed-Mode Crack Propagation in Functionally Graded Materials. <i>Mechanics of Advanced Materials and Structures</i> , 2007 , 14, 227-244	1.8	50
160	Gradient Elasticity Theory for Mode III Fracture in Functionally Graded Materials Part I: Crack Perpendicular to the Material Gradation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2003 , 70, 531-542	2.7	50
159	Continuous-range tunable multilayer frequency-selective surfaces using origami and inkjet printing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 13210-13215	11.5	50
158	Assessment of cohesive traction-separation relationships in ABAQUS: A comparative study. <i>Mechanics Research Communications</i> , 2016 , 78, 71-78	2.2	47
157	Simulation of Crack Propagation in Functionally Graded Materials Under Mixed-Mode and Non-Proportional Loading. <i>International Journal of Mechanics and Materials in Design</i> , 2004 , 1, 63-94	2.5	47

156	Multi-material topology optimization with multiple volume constraints: a general approach applied to ground structures with material nonlinearity. <i>Structural and Multidisciplinary Optimization</i> , 2018 , 57, 161-182	3.6	46
155	Layout and material gradation in topology optimization of functionally graded structures: a global approach. <i>Structural and Multidisciplinary Optimization</i> , 2010 , 42, 855-868	3.6	46
154	Investigation of the Fracture Resistance of Hot-Mix Asphalt Concrete Using a Disk-Shaped Compact Tension Test		45
153	Study on the role of laser surface irradiation on damage and decohesion of Al/epoxy joints. <i>International Journal of Adhesion and Adhesives</i> , 2012 , 39, 33-41	3.4	44
152	Optimal design of periodic functionally graded composites with prescribed properties. <i>Structural and Multidisciplinary Optimization</i> , 2009 , 38, 469-489	3.6	44
151	Crack Tip Interpolation, Revisited. <i>SIAM Journal on Applied Mathematics</i> , 1998 , 58, 428-455	1.8	43
150	Wave propagation and dynamic analysis of smoothly graded heterogeneous continua using graded finite elements. <i>International Journal of Solids and Structures</i> , 2007 , 44, 3601-3626	3.1	43
149	Node and element resequencing using the Laplacian of a finite element graph: Part I—General concepts and algorithm. <i>International Journal for Numerical Methods in Engineering</i> , 1994 , 37, 1511-1530	2.4	43
148	T-stress in orthotropic functionally graded materials: Lekhnitskii and Stroh formalisms. <i>International Journal of Fracture</i> , 2004 , 126, 345-389	2.3	42
147	Origami tubes with reconfigurable polygonal cross-sections. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20150607	2.4	41
146	Identification of cohesive zone model and elastic parameters of fiber-reinforced cementitious composites using digital image correlation and a hybrid inverse technique. <i>Cement and Concrete Composites</i> , 2011 , 33, 572-585	8.6	41
145	A modified Q4/Q4 element for topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2009 , 37, 255-264	3.6	41
144	Computational homogenization of the debonding of particle reinforced composites: The role of interphases in interfaces. <i>Computational Materials Science</i> , 2015 , 109, 209-224	3.2	40
143	Unstructured polygonal meshes with adaptive refinement for the numerical simulation of dynamic cohesive fracture. <i>International Journal of Fracture</i> , 2014 , 189, 33-57	2.3	40
142	A Unified Library of Nonlinear Solution Schemes. <i>Applied Mechanics Reviews</i> , 2011 , 64,	8.6	39
141	Geometric Mechanics of Origami Patterns Exhibiting Poisson's Ratio Switch by Breaking Mountain and Valley Assignment. <i>Physical Review Letters</i> , 2019 , 122, 155501	7.4	37
140	An explicit elastic solution for a brittle film with periodic cracks. <i>International Journal of Fracture</i> , 2008 , 153, 39-52	2.3	37
139	Bloch wave framework for structures with nonlocal interactions: Application to the design of origami acoustic metamaterials. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 118, 115-132	5	37

138	Multi-material continuum topology optimization with arbitrary volume and mass constraints. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 340, 798-823	5.7	36
137	Dense Layered Molybdenum DisilicideSilicon Carbide Functionally Graded Composites Formed by Field-Activated Synthesis. <i>Journal of the American Ceramic Society</i> , 2001 , 84, 962-968	3.8	36
136	HYPERSINGULAR RESIDUALS A NEW APPROACH FOR ERROR ESTIMATION IN THE BOUNDARY ELEMENT METHOD. <i>International Journal for Numerical Methods in Engineering</i> , 1996 , 39, 2005-2029	2.4	36
135	3D printing of complex origami assemblages for reconfigurable structures. <i>Soft Matter</i> , 2018 , 14, 8051-8059	3.59	36
134	Phase-field based topology optimization with polygonal elements: a finite volume approach for the evolution equation. <i>Structural and Multidisciplinary Optimization</i> , 2012 , 46, 327-342	3.6	35
133	A simple boundary element method for problems of potential in non-homogeneous media. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 60, 2203-2230	2.4	35
132	Symmetric Galerkin boundary element computation of T -stress and stress intensity factors for mixed-mode cracks by the interaction integral method. <i>Engineering Analysis With Boundary Elements</i> , 2004 , 28, 1335-1350	2.6	35
131	Stretchable origami robotic arm with omnidirectional bending and twisting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	35
130	Adaptive dynamic cohesive fracture simulation using nodal perturbation and edge-swap operators. <i>International Journal for Numerical Methods in Engineering</i> , 2010 , 84, 1303-1343	2.4	34
129	Application of Graded Finite Elements for Asphalt Pavements. <i>Journal of Engineering Mechanics - ASCE</i> , 2006 , 132, 240-249	2.4	34
128	Global sensitivity analysis in the identification of cohesive models using full-field kinematic data. <i>International Journal of Solids and Structures</i> , 2015 , 55, 66-78	3.1	33
127	A critical comparative assessment of differential equation-driven methods for structural topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2013 , 48, 685-710	3.6	33
126	∅5 Crack opening displacement parameter in cohesive zone models: experiments and simulations in asphalt concrete. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2008 , 31, 850-856	3	33
125	Toward GPU accelerated topology optimization on unstructured meshes. <i>Structural and Multidisciplinary Optimization</i> , 2013 , 48, 473-485	3.6	32
124	Gradient correction for polygonal and polyhedral finite elements. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 102, 728-747	2.4	32
123	Maximizing phononic band gaps in piezocomposite materials by means of topology optimization. <i>Journal of the Acoustical Society of America</i> , 2014 , 136, 494-501	2.2	32
122	IlliT C llow-temperature cracking model for asphalt pavements. <i>Road Materials and Pavement Design</i> , 2013 , 14, 57-78	2.6	32
121	On the enhancement of bond toughness for Al/epoxy T-peel joints with laser treated substrates. <i>International Journal of Fracture</i> , 2011 , 171, 139-150	2.3	32

120	A simple and effective inverse projection scheme for void distribution control in topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2009 , 39, 359-371	3.6	32
119	Material nonlinear topology optimization using the ground structure method with a discrete filtering scheme. <i>Structural and Multidisciplinary Optimization</i> , 2017 , 55, 2045-2072	3.6	31
118	Finite Particle Method for Progressive Failure Simulation of Truss Structures. <i>Journal of Structural Engineering</i> , 2011 , 137, 1168-1181	3	31
117	Convex topology optimization for hyperelastic trusses based on the ground-structure approach. <i>Structural and Multidisciplinary Optimization</i> , 2015 , 51, 287-304	3.6	29
116	Design of complex bone internal structure using topology optimization with perimeter control. <i>Computers in Biology and Medicine</i> , 2018 , 94, 74-84	7	29
115	A hybrid experimental/numerical technique to extract cohesive fracture properties for mode-I fracture of quasi-brittle materials. <i>International Journal of Fracture</i> , 2011 , 169, 113-131	2.3	29
114	PolyMat: an efficient Matlab code for multi-material topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2018 , 58, 2727-2759	3.6	29
113	Invariant and smooth limit of discrete geometry folded from bistable origami leading to multistable metasurfaces. <i>Nature Communications</i> , 2019 , 10, 4238	17.4	28
112	Polygonal multiresolution topology optimization (PolyMTOP) for structural dynamics. <i>Structural and Multidisciplinary Optimization</i> , 2016 , 53, 673-694	3.6	28
111	Fluid flow topology optimization in PolyTop: stability and computational implementation. <i>Structural and Multidisciplinary Optimization</i> , 2016 , 54, 1345-1364	3.6	28
110	A study on the thermodynamic consistency of the ParkPaulinoBoesler (PPR) cohesive fracture model. <i>Mechanics Research Communications</i> , 2016 , 78, 100-109	2.2	27
109	The meshless standard and hypersingular boundary node methods—applications to error estimation and adaptivity in three-dimensional problems. <i>International Journal for Numerical Methods in Engineering</i> , 2001 , 50, 2233-2269	2.4	27
108	Bridging art and engineering using Escher-based virtual elements. <i>Structural and Multidisciplinary Optimization</i> , 2015 , 51, 867-883	3.6	26
107	Geometric nonlinear analyses of functionally graded beams using a tailored Lagrangian formulation. <i>Mechanics Research Communications</i> , 2011 , 38, 553-559	2.2	25
106	Constitutive behaviors of composites with interface debonding: the extended MoriTanaka method for uniaxial tension. <i>International Journal of Fracture</i> , 2007 , 146, 139-148	2.3	25
105	Optimization of material distribution in functionally graded structures with stress constraints. <i>Communications in Numerical Methods in Engineering</i> , 2006 , 23, 535-551		25
104	Auxetic structure design using compliant mechanisms: A topology optimization approach with polygonal finite elements. <i>Advances in Engineering Software</i> , 2019 , 129, 69-80	3.6	24
103	Stochastic sampling for deterministic structural topology optimization with many load cases: Density-based and ground structure approaches. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 325, 463-487	5.7	23

102	On the effect of constraint parameters on the generalized displacement control method. <i>Mechanics Research Communications</i> , 2014 , 56, 123-129	2.2	23
101	Gradient Elasticity Theory for Mode III Fracture in Functionally Graded Materials Part II: Crack Parallel to the Material Gradation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2008 , 75,	2.7	23
100	A methodology for adaptive finite element analysis: Towards an integrated computational environment. <i>Computational Mechanics</i> , 1999 , 23, 361-388	4	23
99	A paradigm for higher-order polygonal elements in finite elasticity using a gradient correction scheme. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 306, 216-251	5.7	23
98	A simple and effective gradient recovery scheme and a posteriori error estimator for the Virtual Element Method (VEM). <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 347, 21-58	5.7	23
97	Unraveling tensegrity tessellations for metamaterials with tunable stiffness and bandgaps. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 131, 147-166	5	22
96	A unified approach for topology optimization with local stress constraints considering various failure criteria: von Mises, Drucker-Prager, Tresca, Mohr-Coulomb, Bresler- Pister and Willam-Warnke. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020 , 476, 20190861	2.4	22
95	On the constitutive relation of materials with microstructure using a potential-based cohesive model for interface interaction. <i>Engineering Fracture Mechanics</i> , 2010 , 77, 1153-1174	4.2	22
94	Nodal sensitivities as error estimates in computational mechanics. <i>Acta Mechanica</i> , 1997 , 121, 191-213	2.1	22
93	Effective Thermal Conductivity of Functionally Graded Particulate Nanocomposites With Interfacial Thermal Resistance. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2008 , 75,	2.7	22
92	Truss layout optimization within a continuum. <i>Structural and Multidisciplinary Optimization</i> , 2013 , 48, 1-16	3.6	21
91	Efficient Handling of Implicit Entities in Reduced Mesh Representations. <i>Journal of Computing and Information Science in Engineering</i> , 2005 , 5, 348-359	2.4	21
90	Topology optimization with local stress constraints: a stress aggregation-free approach. <i>Structural and Multidisciplinary Optimization</i> , 2020 , 62, 1639-1668	3.6	20
89	On nonconvex meshes for elastodynamics using virtual element methods with explicit time integration. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 356, 669-684	5.7	19
88	Implementation and verification of the ParkPaulinoBoesler cohesive zone model in 3D. <i>Engineering Fracture Mechanics</i> , 2014 , 120, 26-42	4.2	19
87	PolyTop++: an efficient alternative for serial and parallel topology optimization on CPUs & GPUs. <i>Structural and Multidisciplinary Optimization</i> , 2015 , 52, 845-859	3.6	19
86	Recycling Krylov subspaces for efficient large-scale electrical impedance tomography. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010 , 199, 3101-3110	5.7	19
85	EVALUATION OF AUTOMATIC DOMAIN PARTITIONING ALGORITHMS FOR PARALLEL FINITE ELEMENT ANALYSIS. <i>International Journal for Numerical Methods in Engineering</i> , 1997 , 40, 1025-1051	2.4	18

84	Structural topology optimization under constraints on instantaneous failure probability. <i>Structural and Multidisciplinary Optimization</i> , 2016 , 53, 773-799	3.6	18
83	Parameter sensitivity of system reliability using sequential compounding method. <i>Structural Safety</i> , 2015 , 55, 26-36	4.9	17
82	Filtering structures out of ground structures by a discrete filtering tool for structural design optimization. <i>Structural and Multidisciplinary Optimization</i> , 2016 , 54, 95-116	3.6	17
81	Effect of material gradation on K-dominance of fracture specimens. <i>Engineering Fracture Mechanics</i> , 2006 , 73, 643-648	4.2	17
80	On hypersingular surface integrals in the symmetric Galerkin boundary element method: application to heat conduction in exponentially graded materials. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 62, 122-157	2.4	17
79	A crack in a viscoelastic functionally graded material layer embedded between two dissimilar homogeneous viscoelastic layers by a plane shear analysis. <i>International Journal of Fracture</i> , 2001 , 111, 283-303	2.3	17
78	Node and element resequencing using the Laplacian of a finite element graph: Part II Implementation and numerical results. <i>International Journal for Numerical Methods in Engineering</i> , 1994 , 37, 1531-1555	2.4	17
77	Tensegrity topology optimization by force maximization on arbitrary ground structures. <i>Structural and Multidisciplinary Optimization</i> , 2019 , 59, 2041-2062	3.6	16
76	Multi-material thermomechanical topology optimization with applications to additive manufacturing: Design of main composite part and its support structure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 363, 112812	5.7	16
75	Influence of the Cohesive Zone Model Shape Parameter on Asphalt Concrete Fracture Behavior. <i>AIP Conference Proceedings</i> , 2008 ,	0	16
74	ON THE POISSON'S RATIO EFFECT ON MIXED-MODE STRESS INTENSITY FACTORS AND T-STRESS IN FUNCTIONALLY GRADED MATERIALS. <i>International Journal of Computational Engineering Science</i> , 2004 , 05, 833-861		16
73	Soft robotic origami crawler.. <i>Science Advances</i> , 2022 , 8, eabm7834	14.3	16
72	Evolutionary characteristic length method for smeared cracking finite element models. <i>Finite Elements in Analysis and Design</i> , 1997 , 27, 99-108	2.2	15
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