

Thomas J R Hughes

List of Publications by Year in descending order

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358
papers

67,292
citations

558

126
h-index

736

251
g-index

395
all docs

395
docs citations

395
times ranked

14428
citing authors

#	ARTICLE	IF	CITATIONS
1	Isogeometric analysis: CAD, finite elements, NURBS, exact geometry and mesh refinement. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 4135-4195.	6.6	4,614
2	Streamline upwind/Petrov-Galerkin formulations for convection dominated flows with particular emphasis on the incompressible Navier-Stokes equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1982, 32, 199-259.	6.6	4,288
3	Improved numerical dissipation for time integration algorithms in structural dynamics. <i>Earthquake Engineering and Structural Dynamics</i> , 1977, 5, 283-292.	4.4	1,886
4	Multiscale phenomena: Green's functions, the Dirichlet-to-Neumann formulation, subgrid scale models, bubbles and the origins of stabilized methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1995, 127, 387-401.	6.6	1,460
5	The variational multiscale method—a paradigm for computational mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998, 166, 3-24.	6.6	1,269
6	Lagrangian-Eulerian finite element formulation for incompressible viscous flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1981, 29, 329-349.	6.6	1,255
7	A phase-field description of dynamic brittle fracture. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 217-220, 77-95.	6.6	1,196
8	A new finite element formulation for computational fluid dynamics: V. Circumventing the Babuška-brezzi condition: a stable Petrov-Galerkin formulation of the Stokes problem accommodating equal-order interpolations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986, 59, 85-99.	6.6	1,190
9	A new finite element formulation for computational fluid dynamics: VIII. The galerkin/least-squares method for advective-diffusive equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1989, 73, 173-189.	6.6	1,186
10	Isogeometric analysis of structural vibrations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 5257-5296.	6.6	885
11	Mixed finite element methods—Reduced and selective integration techniques: A unification of concepts. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1978, 15, 63-81.	6.6	854
12	Finite element method for piezoelectric vibration. <i>International Journal for Numerical Methods in Engineering</i> , 1970, 2, 151-157.	2.8	841
13	Variational multiscale residual-based turbulence modeling for large eddy simulation of incompressible flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 197, 173-201.	6.6	835
14	Isogeometric analysis using T-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 229-263.	6.6	834
15	Isogeometric fluid-structure interaction: theory, algorithms, and computations. <i>Computational Mechanics</i> , 2008, 43, 3-37.	4.0	768
16	Generalization of selective integration procedures to anisotropic and nonlinear media. <i>International Journal for Numerical Methods in Engineering</i> , 1980, 15, 1413-1418.	2.8	766
17	Finite rotation effects in numerical integration of rate constitutive equations arising in large-deformation analysis. <i>International Journal for Numerical Methods in Engineering</i> , 1980, 15, 1862-1867.	2.8	688
18	A simple and efficient finite element for plate bending. <i>International Journal for Numerical Methods in Engineering</i> , 1977, 11, 1529-1543.	2.8	623

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19	Finite element modeling of blood flow in arteries. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998, 158, 155-196.	6.6	594
20	Isogeometric Fluid-structure Interaction Analysis with Applications to Arterial Blood Flow. <i>Computational Mechanics</i> , 2006, 38, 310-322.	4.0	561
21	ISOGEOMETRIC ANALYSIS: APPROXIMATION, STABILITY AND ERROR ESTIMATES FOR h-REFINED MESHES. <i>Mathematical Models and Methods in Applied Sciences</i> , 2006, 16, 1031-1090.	3.3	556
22	Finite Elements Based Upon Mindlin Plate Theory With Particular Reference to the Four-Node Bilinear Isoparametric Element. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1981, 48, 587-596.	2.2	553
23	Stabilized finite element methods: I. Application to the advective-diffusive model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992, 95, 253-276.	6.6	551
24	Isogeometric shell analysis: The Reissner-Mindlin shell. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 276-289.	6.6	551
25	Studies of refinement and continuity in isogeometric structural analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 4160-4183.	6.6	550
26	Reduced and selective integration techniques in the finite element analysis of plates. <i>Nuclear Engineering and Design</i> , 1978, 46, 203-222.	1.7	536
27	A new finite element formulation for computational fluid dynamics: II. Beyond SUPG. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986, 54, 341-355.	6.6	535
28	Large Eddy Simulation and the variational multiscale method. <i>Computing and Visualization in Science</i> , 2000, 3, 47-59.	1.2	532
29	Finite element analysis of incompressible viscous flows by the penalty function formulation. <i>Journal of Computational Physics</i> , 1979, 30, 1-60.	3.8	517
30	Isogeometric analysis of the Cahn-Hilliard phase-field model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 4333-4352.	6.6	514
31	Nonlinear finite element analysis of shells: Part I. three-dimensional shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1981, 26, 331-362.	6.6	511
32	A new finite element formulation for computational fluid dynamics: III. The generalized streamline operator for multidimensional advective-diffusive systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986, 58, 305-328.	6.6	478
33	A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier-Stokes equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1991, 89, 141-219.	6.6	455
34	A new finite element formulation for computational fluid dynamics: I. Symmetric forms of the compressible Euler and Navier-Stokes equations and the second law of thermodynamics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986, 54, 223-234.	6.6	436
35	Space-time finite element methods for elastodynamics: Formulations and error estimates. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1988, 66, 339-363.	6.6	436
36	Efficient quadrature for NURBS-based isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 301-313.	6.6	426

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37	A higher-order phase-field model for brittle fracture: Formulation and analysis within the isogeometric analysis framework. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 273, 100-118.	6.6	418
38	A finite element method for a class of contact-impact problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1976, 8, 249-276.	6.6	407
39	Isogeometric finite element data structures based on BÄ©zier extraction of NURBS. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 87, 15-47.	2.8	407
40	A coupled momentum method for modeling blood flow in three-dimensional deformable arteries. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 5685-5706.	6.6	406
41	A phase-field formulation for fracture in ductile materials: Finite deformation balance law derivation, plastic degradation, and stress triaxiality effects. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 312, 130-166.	6.6	399
42	Large eddy simulation of turbulent channel flows by the variational multiscale method. <i>Physics of Fluids</i> , 2001, 13, 1784-1799.	4.0	384
43	Weak imposition of Dirichlet boundary conditions in fluid mechanics. <i>Computers and Fluids</i> , 2007, 36, 12-26.	2.5	381
44	An isogeometric design-through-analysis methodology based on adaptive hierarchical refinement of NURBS, immersed boundary methods, and T-spline CAD surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 249-252, 116-150.	6.6	372
45	Collocation, dissipation and [overshoot] for time integration schemes in structural dynamics. <i>Earthquake Engineering and Structural Dynamics</i> , 1978, 6, 99-117.	4.4	366
46	Continuous/discontinuous finite element approximations of fourth-order elliptic problems in structural and continuum mechanics with applications to thin beams and plates, and strain gradient elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002, 191, 3669-3750.	6.6	365
47	On the Variational Foundations of Assumed Strain Methods. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1986, 53, 51-54.	2.2	351
48	A new finite element formulation for computational fluid dynamics: VII. The stokes problem with various well-posed boundary conditions: Symmetric formulations that converge for all velocity/pressure spaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1987, 65, 85-96.	6.6	351
49	An immersogeometric variational framework for fluidâ€structure interaction: Application to bioprosthetic heart valves. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 1005-1053.	6.6	350
50	Finite element methods for first-order hyperbolic systems with particular emphasis on the compressible euler equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1984, 45, 217-284.	6.6	348
51	Patient-specific isogeometric fluidâ€structure interaction analysis of thoracic aortic blood flow due to implantation of the Jarvik 2000 left ventricular assist device. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 3534-3550.	6.6	347
52	The multiscale formulation of large eddy simulation: Decay of homogeneous isotropic turbulence. <i>Physics of Fluids</i> , 2001, 13, 505-512.	4.0	344
53	Patient-specific vascular NURBS modeling for isogeometric analysis of blood flow. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 2943-2959.	6.6	340
54	Duality and unified analysis of discrete approximations in structural dynamics and wave propagation: Comparison of p-method finite elements with k-method NURBS. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 4104-4124.	6.6	329

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55	An arbitrary Lagrangian-Eulerian finite element method for interaction of fluid and a rigid body. Computer Methods in Applied Mechanics and Engineering, 1992, 95, 115-138.	6.6	318
56	Isogeometric boundary element analysis using unstructured T-splines. Computer Methods in Applied Mechanics and Engineering, 2013, 254, 197-221.	6.6	311
57	ISOGEOMETRIC COLLOCATION METHODS. Mathematical Models and Methods in Applied Sciences, 2010, 20, 2075-2107.	3.3	308
58	Well-posed quasi-linear second-order hyperbolic systems with applications to nonlinear elastodynamics and general relativity. Archive for Rational Mechanics and Analysis, 1977, 63, 273-294.	2.4	303
59	A large deformation, rotation-free, isogeometric shell. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1367-1378.	6.6	300
60	and projection methods for nearly incompressible linear and non-linear elasticity and plasticity using higher-order NURBS elements. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2732-2762.	6.6	297
61	Finite Element Modeling of Three-Dimensional Pulsatile Flow in the Abdominal Aorta: Relevance to Atherosclerosis. Annals of Biomedical Engineering, 1998, 26, 975-987.	2.5	293
62	Product formulas and numerical algorithms. Communications on Pure and Applied Mathematics, 1978, 31, 205-256.	3.1	291
63	Implicit-Explicit Finite Elements in Transient Analysis: Stability Theory. Journal of Applied Mechanics, Transactions ASME, 1978, 45, 371-374.	2.2	287
64	A new finite element formulation for computational fluid dynamics: IV. A discontinuity-capturing operator for multidimensional advective-diffusive systems. Computer Methods in Applied Mechanics and Engineering, 1986, 58, 329-336.	6.6	286
65	Local refinement of analysis-suitable T-splines. Computer Methods in Applied Mechanics and Engineering, 2012, 213-216, 206-222.	6.6	285
66	On drilling degrees of freedom. Computer Methods in Applied Mechanics and Engineering, 1989, 72, 105-121.	6.6	273
67	Isogeometric finite element data structures based on BÄ©zier extraction of TÄ©splines. International Journal for Numerical Methods in Engineering, 2011, 88, 126-156.	2.8	268
68	Space-time finite element methods for second-order hyperbolic equations. Computer Methods in Applied Mechanics and Engineering, 1990, 84, 327-348.	6.6	257
69	$b = \hat{a} \cdot g$. Computer Methods in Applied Mechanics and Engineering, 1997, 145, 329-339.	6.6	253
70	Isogeometric collocation: Cost comparison with Galerkin methods and extension to adaptive hierarchical NURBS discretizations. Computer Methods in Applied Mechanics and Engineering, 2013, 267, 170-232.	6.6	248
71	NURBS-based isogeometric analysis for the computation of flows about rotating components. Computational Mechanics, 2008, 43, 143-150.	4.0	244
72	Isogeometric variational multiscale modeling of wall-bounded turbulent flows with weakly enforced boundary conditions on unstretched meshes. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 780-790.	6.6	241

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73	Fluid-structure interaction analysis of bioprosthetic heart valves: significance of arterial wall deformation. <i>Computational Mechanics</i> , 2014, 54, 1055-1071.	4.0	240
74	Implicit-explicit finite elements in nonlinear transient analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1979, 17-18, 159-182.	6.6	239
75	A three-node mindlin plate element with improved transverse shear. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1985, 50, 71-101.	6.6	237
76	Contact treatment in isogeometric analysis with NURBS. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 1100-1112.	6.6	236
77	Two classes of mixed finite element methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1988, 69, 89-129.	6.6	235
78	A stabilized mixed finite element method for Darcy flow. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002, 191, 4341-4370.	6.6	233
79	n-Widths, sup-infs, and optimality ratios for the k-version of the isogeometric finite element method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 1726-1741.	6.6	231
80	An element-by-element solution algorithm for problems of structural and solid mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1983, 36, 241-254.	6.6	228
81	A simple scheme for developing $\hat{\epsilon}$ -upwind TM finite elements. <i>International Journal for Numerical Methods in Engineering</i> , 1978, 12, 1359-1365.	2.8	221
82	Robustness of isogeometric structural discretizations under severe mesh distortion. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 357-373.	6.6	220
83	Isogeometric Analysis for Topology Optimization with a Phase Field Model. <i>Archives of Computational Methods in Engineering</i> , 2012, 19, 427-465.	10.2	220
84	Variational Multiscale Analysis: the Fine-scale Green's Function, Projection, Optimization, Localization, and Stabilized Methods. <i>SIAM Journal on Numerical Analysis</i> , 2007, 45, 539-557.	2.3	216
85	Recent progress in the development and understanding of SUPG methods with special reference to the compressible Euler and Navier-Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , 1987, 7, 1261-1275.	1.6	215
86	A generalized finite element formulation for arbitrary basis functions: From isogeometric analysis to XFEM. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 83, 765-785.	2.8	213
87	Galerkin/least-squares finite element methods for the reduced wave equation with non-reflecting boundary conditions in unbounded domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992, 98, 411-454.	6.6	212
88	A new finite element formulation for computational fluid dynamics: VI. Convergence analysis of the generalized SUPG formulation for linear time-dependent multidimensional advective-diffusive systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1987, 63, 97-112.	6.6	210
89	The Continuous Galerkin Method Is Locally Conservative. <i>Journal of Computational Physics</i> , 2000, 163, 467-488.	3.8	203
90	The role of continuity in residual-based variational multiscale modeling of turbulence. <i>Computational Mechanics</i> , 2007, 41, 371-378.	4.0	202

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91	Nonlinear finite element analysis of shells-part II. two-dimensional shells. Computer Methods in Applied Mechanics and Engineering, 1981, 27, 167-181.	6.6	201
92	Weak Dirichlet boundary conditions for wall-bounded turbulent flows. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 4853-4862.	6.6	200
93	A space-time Galerkin/least-squares finite element formulation of the Navier-Stokes equations for moving domain problems. Computer Methods in Applied Mechanics and Engineering, 1997, 146, 91-126.	6.6	199
94	Improving stability of stabilized and multiscale formulations in flow simulations at small time steps. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 828-840.	6.6	199
95	Provably unconditionally stable, second-order time-accurate, mixed variational methods for phase-field models. Journal of Computational Physics, 2011, 230, 5310-5327.	3.8	196
96	The "heterosis" finite element for plate bending. Computers and Structures, 1978, 9, 445-450.	4.4	191
97	Isogeometric analysis of the isothermal Navier-Stokes-Korteweg equations. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1828-1840.	6.6	191
98	Finite element and NURBS approximations of eigenvalue, boundary-value, and initial-value problems. Computer Methods in Applied Mechanics and Engineering, 2014, 272, 290-320.	6.6	187
99	On linear independence of T-spline blending functions. Computer Aided Geometric Design, 2012, 29, 63-76.	1.2	184
100	Unconditionally stable algorithms for quasi-static elasto/visco-plastic finite element analysis. Computers and Structures, 1978, 8, 169-173.	4.4	183
101	Implicit-Explicit Finite Elements in Transient Analysis: Implementation and Numerical Examples. Journal of Applied Mechanics, Transactions ASME, 1978, 45, 375-378.	2.2	181
102	A comparative study of different sets of variables for solving compressible and incompressible flows. Computer Methods in Applied Mechanics and Engineering, 1998, 153, 1-44.	6.6	176
103	A simple algorithm for obtaining nearly optimal quadrature rules for NURBS-based isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2012, 249-252, 15-27.	6.6	172
104	Isogeometric collocation for elastostatics and explicit dynamics. Computer Methods in Applied Mechanics and Engineering, 2012, 249-252, 2-14.	6.6	171
105	On the one-dimensional theory of blood flow in the larger vessels. Mathematical Biosciences, 1973, 18, 161-170.	1.9	168
106	Large-scale vectorized implicit calculations in solid mechanics on a Cray X-MP/48 utilizing EBE preconditioned conjugate gradients. Computer Methods in Applied Mechanics and Engineering, 1987, 61, 215-248.	6.6	168
107	An isogeometric analysis approach to gradient damage models. International Journal for Numerical Methods in Engineering, 2011, 86, 115-134.	2.8	160
108	Finite element methods for the helmholtz equation in an exterior domain: Model problems. Computer Methods in Applied Mechanics and Engineering, 1991, 87, 59-96.	6.6	159

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109	Computation of Trailing-Edge Noise Due to Turbulent Flow over an Airfoil. <i>AIAA Journal</i> , 2002, 40, 2206-2216.	2.6	158
110	The finite element method with Lagrange multipliers on the boundary: circumventing the BabuÅka-Brezzi condition. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1991, 85, 109-128.	6.6	157
111	What are C and h?: Inequalities for the analysis and design of finite element methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992, 97, 157-192.	6.6	157
112	Simulating the spread of COVID-19 via a spatially-resolved susceptibleâ€exposedâ€infectedâ€recoveredâ€deceased (SEIRD) model with heterogeneous diffusion. <i>Applied Mathematics Letters</i> , 2021, 111, 106617.	2.7	156
113	Effect of exercise on hemodynamic conditions in the abdominal aorta. <i>Journal of Vascular Surgery</i> , 1999, 29, 1077-1089.	1.1	155
114	An isogeometric approach to cohesive zone modeling. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 87, 336-360.	2.8	154
115	Unconditionally stable algorithms for nonlinear heat conduction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1977, 10, 135-139.	6.6	149
116	A new finite element formulation for computational fluid dynamics: IX. Fourier analysis of space-time Galerkin/least-squares algorithms. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1991, 87, 35-58.	6.6	149
117	Solution algorithms for nonlinear transient heat conduction analysis employing element-by-element iterative strategies. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1985, 52, 711-815.	6.6	148
118	A unified approach to compressible and incompressible flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994, 113, 389-395.	6.6	148
119	An automatic 3D mesh generation method for domains with multiple materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 405-415.	6.6	146
120	A PreÃcis of Developments in Computational Methods for Transient Analysis. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1983, 50, 1033-1041.	2.2	145
121	Finite-Element Methods for Nonlinear Elastodynamics Which Conserve Energy. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1978, 45, 366-370.	2.2	143
122	An improved treatment of transverse shear in the mindlin-type four-node quadrilateral element. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1983, 39, 311-335.	6.6	142
123	Consistent linearization in mechanics of solids and structures. <i>Computers and Structures</i> , 1978, 8, 391-397.	4.4	140
124	ISOGEOMETRIC DIVERGENCE-CONFORMING B-SPLINES FOR THE STEADY NAVIERâ€STOKES EQUATIONS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013, 23, 1421-1478.	3.3	137
125	Three-dimensional mortar-based frictional contact treatment in isogeometric analysis with NURBS. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 209-212, 115-128.	6.6	134
126	Solid T-spline construction from boundary representations for genus-zero geometry. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 249-252, 185-197.	6.6	133

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127	Blended isogeometric shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 255, 133-146.	6.6	133
128	\mathbb{Z}^2 discontinuity capturing for advection-dominated processes with application to arterial drug delivery. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 54, 593-608.	1.6	129
129	Stabilized Methods for Compressible Flows. <i>Journal of Scientific Computing</i> , 2010, 43, 343-368.	2.3	129
130	Convergence analyses of Galerkin least-squares methods for symmetric advective-diffusive forms of the Stokes and incompressible Navier-Stokes equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993, 105, 285-298.	6.6	125
131	Numerical Implementation of Constitutive Models: Rate-Independent Deviatoric Plasticity. , 1984, , 29-63.		123
132	Research directions in computational mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003, 192, 913-922.	6.6	123
133	Finite element formulations for convection dominated flows with particular emphasis on the compressible Euler equations. , 1983, , .		122
134	Isogeometric contact: a review. <i>GAMM Mitteilungen</i> , 2014, 37, 85-123.	5.5	122
135	Isogeometric divergence-conforming B-splines for the unsteady Navier–Stokes equations. <i>Journal of Computational Physics</i> , 2013, 241, 141-167.	3.8	120
136	Reduced BÄzier element quadrature rules for quadratic and cubic splines in isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 277, 1-45.	6.6	120
137	A multi-element group preconditioned GMRES algorithm for nonsymmetric systems arising in finite element analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1989, 75, 415-456.	6.6	117
138	Equivalence of Finite Elements for Nearly Incompressible Elasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1977, 44, 181-183.	2.2	115
139	Analysis of continuous formulations underlying the computation of time-harmonic acoustics in exterior domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992, 97, 103-124.	6.6	115
140	A Review of Trimming in Isogeometric Analysis: Challenges, Data Exchange and Simulation Aspects. <i>Archives of Computational Methods in Engineering</i> , 2018, 25, 1059-1127.	10.2	115
141	A globally convergent matrix-free algorithm for implicit time-marching schemes arising in finite element analysis in fluids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1991, 87, 281-304.	6.6	114
142	Trivariate solid T-spline construction from boundary triangulations with arbitrary genus topology. <i>CAD Computer Aided Design</i> , 2013, 45, 351-360.	2.7	114
143	A multiscale discontinuous Galerkin method with the computational structure of a continuous Galerkin method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 2761-2787.	6.6	111
144	A cost comparison of boundary element and finite element methods for problems of time-harmonic acoustics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992, 97, 77-102.	6.6	110

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145	Stability, convergence and growth and decay of energy of the average acceleration method in nonlinear structural dynamics. <i>Computers and Structures</i> , 1976, 6, 313-324.	4.4	109
146	A space-time formulation for multiscale phenomena. <i>Journal of Computational and Applied Mathematics</i> , 1996, 74, 217-229.	2.0	109
147	A Petrov-Galerkin finite element method for convection-dominated flows: An accurate upwinding technique for satisfying the maximum principle. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1985, 50, 181-193.	6.6	108
148	Patient-specific isogeometric structural analysis of aortic valve closure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 508-520.	6.6	102
149	Isogeometric collocation: Neumann boundary conditions and contact. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 21-54.	6.6	101
150	A Priori Error Analysis of Residual-Free Bubbles for Advection-Diffusion Problems. <i>SIAM Journal on Numerical Analysis</i> , 1999, 36, 1933-1948.	2.3	99
151	An improved implicit-explicit time integration method for structural dynamics. <i>Earthquake Engineering and Structural Dynamics</i> , 1989, 18, 643-653.	4.4	97
152	Computational procedures for determining structural-acoustic response due to hydrodynamic sources. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 190, 345-361.	6.6	97
153	Selective and reduced numerical integrations for NURBS-based isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 732-761.	6.6	96
154	Smooth cubic spline spaces on unstructured quadrilateral meshes with particular emphasis on extraordinary points: Geometric design and isogeometric analysis considerations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 327, 411-458.	6.6	94
155	A framework for designing patient-specific bioprosthetic heart valves using immersed isogeometric fluid-structure interaction analysis. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2938.	2.1	93
156	In vivo validation of a one-dimensional finite-element method for predicting blood flow in cardiovascular bypass grafts. <i>IEEE Transactions on Biomedical Engineering</i> , 2003, 50, 649-656.	4.2	91
157	A One-dimensional Finite Element Method for Simulation-based Medical Planning for Cardiovascular Disease. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2002, 5, 195-206.	1.6	90
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