

Thomas J R Hughes

List of Publications by Year in descending order

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358
papers

67,292
citations

553

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735

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395
all docs

395
docs citations

395
times ranked

14428
citing authors

#	ARTICLE	IF	CITATIONS
1	Discontinuous Galerkin methods through the lens of variational multiscale analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 388, 114220.	3.4	8
2	Isogeometric model reconstruction of open shells via Ricci flow and quadrilateral layout-inducing energies. <i>Engineering Structures</i> , 2022, 252, 113602.	2.6	9
3	Analysis-suitable unstructured T-splines: Multiple extraordinary points per face. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 391, 114494.	3.4	25
4	Galerkin Formulations with Greville Quadrature Rules for Isogeometric Shell Analysis: Higher Order Elements and Locking. , 2022, , 207-215.		0
5	A Comparison of Matrix-Free Isogeometric Galerkin and Collocation Methods for Karhunen-Loève Expansion. , 2022, , 329-341.		0
6	Dynamic Fracture of Brittle Shells in a Space-Time Adaptive Isogeometric Phase Field Framework. , 2022, , 407-415.		0
7	An accurate strategy for computing reaction forces and fluxes on trimmed locally refined meshes. <i>Journal of Mechanics</i> , 2022, 38, 60-76.	0.7	5
8	Quadrilateral layout generation and optimization using equivalence classes of integral curves: theory and application to surfaces with boundaries. <i>Journal of Mechanics</i> , 2022, 38, 128-155.	0.7	5
9	Simulating the spread of COVID-19 via a spatially-resolved susceptible-exposed-infected-recovered-deceased (SEIRD) model with heterogeneous diffusion. <i>Applied Mathematics Letters</i> , 2021, 111, 106617.	1.5	156
10	The divergence-conforming immersed boundary method: Application to vesicle and capsule dynamics. <i>Journal of Computational Physics</i> , 2021, 425, 109872.	1.9	23
11	Tuned hybrid nonuniform subdivision surfaces with optimal convergence rates. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 2117-2144.	1.5	27
12	Computational medicine, present and the future: obstetrics and gynecology perspective. <i>American Journal of Obstetrics and Gynecology</i> , 2021, 224, 16-34.	0.7	7
13	Polynomial spline spaces of non-uniform bi-degree on T-meshes: combinatorial bounds on the dimension. <i>Advances in Computational Mathematics</i> , 2021, 47, 1.	0.8	1
14	Isogeometric discrete differential forms: Non-uniform degrees, B-splines extraction, polar splines and flows on surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 376, 113576.	3.4	12
15	Patient specific, imaging-informed modeling of rhenium-186 nanoliposome delivery via convection-enhanced delivery in glioblastoma multiforme. <i>Biomedical Physics and Engineering Express</i> , 2021, 7, 045012.	0.6	6
16	A matrix-free isogeometric Galerkin method for Karhunen-Loève approximation of random fields using tensor product splines, tensor contraction and interpolation based quadrature. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 379, 113730.	3.4	13
17	Removal of spurious outlier frequencies and modes from isogeometric discretizations of second- and fourth-order problems in one, two, and three dimensions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 387, 114115.	3.4	14
18	Smooth multi-patch discretizations in Isogeometric Analysis. <i>Handbook of Numerical Analysis</i> , 2021, , 467-543.	0.9	6

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19	Seamless integration of design and Kirchhoff's Love shell analysis using analysis-suitable unstructured T-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 360, 112765.	3.4	58
20	Multi-degree B-splines: Algorithmic computation and properties. <i>Computer Aided Geometric Design</i> , 2020, 76, 101792.	0.5	24
21	Thinner biological tissues induce leaflet flutter in aortic heart valve replacements. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19007-19016.	3.3	50
22	Diffusion-reaction compartmental models formulated in a continuum mechanics framework: application to COVID-19, mathematical analysis, and numerical study. <i>Computational Mechanics</i> , 2020, 66, 1131-1152.	2.2	63
23	Mixed stress-displacement isogeometric collocation for nearly incompressible elasticity and elastoplasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113112.	3.4	18
24	Towards untrimmed NURBS: CAD embedded reparameterization of trimmed B-rep geometry using frame-field-guided global parameterization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113227.	3.4	21
25	Computational study of the dual role of α -reductase inhibitors on tumor growth in prostates enlarged by benign prostatic hyperplasia via stress relaxation and apoptosis upregulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112843.	3.4	11
26	An adaptive space-time phase field formulation for dynamic fracture of brittle shells based on LR NURBS. <i>Computational Mechanics</i> , 2020, 65, 1039-1062.	2.2	32
27	A Tchebycheffian Extension of Multidegree B-Splines: Algorithmic Computation and Properties. <i>SIAM Journal on Numerical Analysis</i> , 2020, 58, 1138-1163.	1.1	15
28	Computational Cardiovascular Analysis with the Variational Multiscale Methods and Isogeometric Discretization. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2020, , 151-193.	0.4	21
29	Reconstruction of Trimmed NURBS Surfaces for Gap-Free Intersections. <i>Journal of Computing and Information Science in Engineering</i> , 2020, 20, .	1.7	1
30	Polynomial splines of non-uniform degree on triangulations: Combinatorial bounds on the dimension. <i>Computer Aided Geometric Design</i> , 2019, 75, 101763.	0.5	5
31	Fast formation and assembly of finite element matrices with application to isogeometric linear elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 355, 234-260.	3.4	39
32	Isogeometric boundary element methods and patch tests for linear elastic problems: Formulation, numerical integration, and applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 357, 112591.	3.4	21
33	Watertight Boolean operations: A framework for creating CAD-compatible gap-free editable solid models. <i>CAD Computer Aided Design</i> , 2019, 115, 147-160.	1.4	19
34	An isogeometric finite element formulation for phase transitions on deforming surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 351, 441-477.	3.4	31
35	Analysis-suitable CAD Models based on Watertight Boolean Operations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900275.	0.2	1
36	Computer simulations suggest that prostate enlargement due to benign prostatic hyperplasia mechanically impedes prostate cancer growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 1152-1161.	3.3	79

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37	Symbol-Based Analysis of Finite Element and Isogeometric B-Spline Discretizations of Eigenvalue Problems: Exposition and Review. Archives of Computational Methods in Engineering, 2019, 26, 1639-1690.	6.0	28
38	Review of Patient-Specific Vascular Modeling: Template-Based Isogeometric Framework and the Case for CAD. Archives of Computational Methods in Engineering, 2019, 26, 381-404.	6.0	26
39	Integrating quantitative imaging and computational modeling to predict the spatiotemporal distribution of 186Re nanoliposomes for recurrent glioblastoma treatment. , 2019, , .		1
40	Reconstruction of Gap-Free Intersections for Trimmed NURBS Surfaces. , 2019, , .		0
41	Variationally consistent isogeometric analysis of trimmed thin shells at finite deformations, based on the STEP exchange format. Computer Methods in Applied Mechanics and Engineering, 2018, 336, 39-79.	3.4	75
42	Explicit higher-order accurate isogeometric collocation methods for structural dynamics. Computer Methods in Applied Mechanics and Engineering, 2018, 338, 208-240.	3.4	60
43	Improved conditioning of isogeometric analysis matrices for trimmed geometries. Computer Methods in Applied Mechanics and Engineering, 2018, 334, 79-110.	3.4	33
44	A Review of Trimming in Isogeometric Analysis: Challenges, Data Exchange and Simulation Aspects. Archives of Computational Methods in Engineering, 2018, 25, 1059-1127.	6.0	115
45	Phase-Field Formulation for Ductile Fracture. Computational Methods in Applied Sciences (Springer), 2018, , 45-70.	0.1	6
46	A framework for designing patient-specific bioprosthetic heart valves using immersogeometric fluid-structure interaction analysis. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2938.	1.0	93
47	Isogeometric Analysis: Mathematical and Implementational Aspects, with Applications. Lecture Notes in Mathematics, 2018, , 237-315.	0.1	8
48	Error estimates for projection-based dynamic augmented Lagrangian boundary condition enforcement, with application to fluid-structure interaction. Mathematical Models and Methods in Applied Sciences, 2018, 28, 2457-2509.	1.7	40
49	Blended B-spline construction on unstructured quadrilateral and hexahedral meshes with optimal convergence rates in isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2018, 341, 609-639.	3.4	49
50	A diffuse interface method for the Navier-Stokes/Darcy equations: Perfusion profile for a patient-specific human liver based on MRI scans. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 70-102.	3.4	33
51	Smooth cubic spline spaces on unstructured quadrilateral meshes with particular emphasis on extraordinary points: Geometric design and isogeometric analysis considerations. Computer Methods in Applied Mechanics and Engineering, 2017, 327, 411-458.	3.4	94
52	Hierarchically refined and coarsened splines for moving interface problems, with particular application to phase-field models of prostate tumor growth. Computer Methods in Applied Mechanics and Engineering, 2017, 319, 515-548.	3.4	40
53	Truncated hierarchical tricubic $\frac{1}{27} \sum_{i=0}^2 \sum_{j=0}^2 \sum_{k=0}^2 \xi_i \eta_j \zeta_k \mathbf{B}_i(\xi) \mathbf{B}_j(\eta) \mathbf{B}_k(\zeta)$ spline construction on unstructured hexahedral meshes for isogeometric analysis applications. Computers and Mathematics With Applications, 2017, 74, 2203-2220.	1.4	26
54	Optimal and reduced quadrature rules for tensor product and hierarchically refined splines in isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 966-1004.	3.4	81

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55	Multi-degree smooth polar splines: A framework for geometric modeling and isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 316, 1005-1061.	3.4	68
56	Truncated T-splines: Fundamentals and methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 316, 349-372.	3.4	67
57	Immersogeometric cardiovascular fluid-structure interaction analysis with divergence-conforming B-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 314, 408-472.	3.4	80
58	Inversion of geothermal heat flux in a thermomechanically coupled nonlinear Stokes ice sheet model. <i>Cryosphere</i> , 2016, 10, 1477-1494.	1.5	8
59	Extended Truncated Hierarchical Catmull-Clark Subdivision. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 299, 316-336.	3.4	37
60	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.	3.4	399
61	Isogeometric Compatible Discretizations for Viscous Incompressible Flow. <i>Lecture Notes in Mathematics</i> , 2016, , 155-193.	0.1	2
62	Tissue-scale, personalized modeling and simulation of prostate cancer growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E7663-E7671.	3.3	68
63	Isogeometric analysis of boundary integral equations: High-order collocation methods for the singular and hyper-singular equations. <i>Mathematical Models and Methods in Applied Sciences</i> , 2016, 26, 1447-1480.	1.7	20
64	A palette of fine-scale eddy viscosity and residual-based models for variational multiscale formulations of turbulence. <i>Computational Mechanics</i> , 2016, 57, 629-635.	2.2	3
65	Laudation at the AFSI 2014 Conference Banquet Celebrating Tayfun Tezduyar's 60th Birthday, Tokyo, Japan, March 2014. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2016, , 1-3.	0.4	0
66	Isogeometric Phase-Field Simulation of Boiling. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2016, , 217-228.	0.4	0
67	A collocated C^0 finite element method: Reduced quadrature perspective, cost comparison with standard finite elements, and explicit structural dynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 102, 576-631.	1.5	28
68	Magnetic resonance imaging-based computational modelling of blood flow and nanomedicine deposition in patients with peripheral arterial disease. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150001.	1.5	27
69	An Introduction to Isogeometric Collocation Methods. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2015, , 173-204.	0.3	12
70	Single-variable formulations and isogeometric discretizations for shear deformable beams. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 988-1004.	3.4	90
71	An immersogeometric variational framework for fluid-structure interaction: Application to bioprosthetic heart valves. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 1005-1053.	3.4	350
72	Truncated hierarchical Catmull-Clark subdivision with local refinement. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 291, 1-20.	3.4	89

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73	Selective and reduced numerical integrations for NURBS-based isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 732-761.	3.4	96
74	A locking-free model for Reissnerâ€“Mindlin plates: Analysis and isogeometric implementation via NURBS and triangular NURPS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015, 25, 1519-1551.	1.7	64
75	Isogeometric collocation for large deformation elasticity and frictional contact problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 296, 73-112.	3.4	85
76	Liquidâ€“vapor phase transition: Thermomechanical theory, entropy stable numerical formulation, and boiling simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 297, 476-553.	3.4	66
77	Patient-specific isogeometric structural analysis of aortic valve closure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 508-520.	3.4	102
78	Isogeometric collocation: Neumann boundary conditions and contact. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 21-54.	3.4	101
79	Amplitudeâ€“phase decompositions and the growth and decay of solutions of the incompressible Navierâ€“Stokes and Euler equations. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014, 24, 1017-1035.	1.7	0
80	Isogeometric contact: a review. <i>GAMM Mitteilungen</i> , 2014, 37, 85-123.	2.7	122
81	Isogeometric analysis of nearly incompressible large strain plasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 268, 388-416.	3.4	40
82	Vascular deposition patterns for nanoparticles in an inflamed patient-specific arterial tree. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014, 13, 585-597.	1.4	40
83	Volumetric T-spline construction using Boolean operations. <i>Engineering With Computers</i> , 2014, 30, 425-439.	3.5	75
84	Reduced BÃ©zier element quadrature rules for quadratic and cubic splines in isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 277, 1-45.	3.4	120
85	A residual based eddy viscosity model for the large eddy simulation of turbulent flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 282, 54-70.	3.4	15
86	Isogeometric boundary-element analysis for the wave-resistance problem using T-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 279, 425-439.	3.4	60
87	Fluidâ€“structure interaction analysis of bioprosthetic heart valves: significance of arterial wall deformation. <i>Computational Mechanics</i> , 2014, 54, 1055-1071.	2.2	240
88	Finite element and NURBS approximations of eigenvalue, boundary-value, and initial-value problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 272, 290-320.	3.4	187
89	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.	3.4	418
90	USNCTAM perspectives on mechanics in medicine. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140301.	1.5	35

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91	Volumetric T-spline Construction Using Boolean Operations. , 2014, , 405-424.		3
92	Explicit trace inequalities for isogeometric analysis and parametric hexahedral finite elements. Numerische Mathematik, 2013, 123, 259-290.	0.9	37
93	ISOGEOMETRIC DIVERGENCE-CONFORMING B-SPLINES FOR THE DARCYâ€“STOKESâ€“BRINKMAN EQUATIONS. Mathematical Models and Methods in Applied Sciences, 2013, 23, 671-741.	1.7	81
94	Conformal solid T-spline construction from boundary T-spline representations. Computational Mechanics, 2013, 51, 1051-1059.	2.2	71
95	Isogeometric boundary element analysis using unstructured T-splines. Computer Methods in Applied Mechanics and Engineering, 2013, 254, 197-221.	3.4	311
96	Blended isogeometric shells. Computer Methods in Applied Mechanics and Engineering, 2013, 255, 133-146.	3.4	133
97	Isogeometric divergence-conforming B-splines for the unsteady Navierâ€“Stokes equations. Journal of Computational Physics, 2013, 241, 141-167.	1.9	120
98	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.	3.4	248
99	Functional entropy variables: A new methodology for deriving thermodynamically consistent algorithms for complex fluids, with particular reference to the isothermal Navierâ€“Stokesâ€“Korteweg equations. Journal of Computational Physics, 2013, 248, 47-86.	1.9	57
100	Isogeometric analysis of the advective Cahnâ€“Hilliard equation: Spinodal decomposition under shear flow. Journal of Computational Physics, 2013, 242, 321-350.	1.9	90
101	<i>In silico</i> vascular modeling for personalized nanoparticle delivery. Nanomedicine, 2013, 8, 343-357.	1.7	66
102	Trivariate solid T-spline construction from boundary triangulations with arbitrary genus topology. CAD Computer Aided Design, 2013, 45, 351-360.	1.4	114
103	Isogeometric Collocation: Cost Comparison with Galerkin Methods and Extension to Adaptive Hierarchical NURBS Discretizations. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 107-108.	0.2	2
104	Simulation of laminar and turbulent concentric pipe flows with the isogeometric variational multiscale method. Computers and Fluids, 2013, 71, 146-155.	1.3	29
105	ISOGEOMETRIC DIVERGENCE-CONFORMING B-SPLINES FOR THE STEADY NAVIERâ€“STOKES EQUATIONS. Mathematical Models and Methods in Applied Sciences, 2013, 23, 1421-1478.	1.7	137
106	An inexact Gauss-Newton method for inversion of basal sliding and rheology parameters in a nonlinear Stokes ice sheet model. Journal of Glaciology, 2012, 58, 889-903.	1.1	80
107	Isogeometric collocation for elastostatics and explicit dynamics. Computer Methods in Applied Mechanics and Engineering, 2012, 249-252, 2-14.	3.4	171
108	Isogeometric Analysis for Topology Optimization with a Phase Field Model. Archives of Computational Methods in Engineering, 2012, 19, 427-465.	6.0	220

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109	Discrete spectrum analyses for various mixed discretizations of the Stokes eigenproblem. Computational Mechanics, 2012, 50, 667-674.	2.2	24
110	Solid T-spline construction from boundary representations for genus-zero geometry. Computer Methods in Applied Mechanics and Engineering, 2012, 249-252, 185-197.	3.4	133
111	An isogeometric design-through-analysis methodology based on adaptive hierarchical refinement of NURBS, immersed boundary methods, and T-spline CAD surfaces. Computer Methods in Applied Mechanics and Engineering, 2012, 249-252, 116-150.	3.4	372
112	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.	3.4	172
113	Isogeometric variational multiscale large-eddy simulation of fully-developed turbulent flow over a wavy wall. Computers and Fluids, 2012, 68, 94-104.	1.3	48
114	Converting an unstructured quadrilateral/hexahedral mesh to a rational T-spline. Computational Mechanics, 2012, 50, 65-84.	2.2	57
115	On linear independence of T-spline blending functions. Computer Aided Geometric Design, 2012, 29, 63-76.	0.5	184
116	Generalization of the twist-Kirchhoff theory of plate elements to arbitrary quadrilaterals and assessment of convergence. Computer Methods in Applied Mechanics and Engineering, 2012, 209-212, 101-114.	3.4	7
117	Three-dimensional mortar-based frictional contact treatment in isogeometric analysis with NURBS. Computer Methods in Applied Mechanics and Engineering, 2012, 209-212, 115-128.	3.4	134
118	Local refinement of analysis-suitable T-splines. Computer Methods in Applied Mechanics and Engineering, 2012, 213-216, 206-222.	3.4	285
119	A phase-field description of dynamic brittle fracture. Computer Methods in Applied Mechanics and Engineering, 2012, 217-220, 77-95.	3.4	1,196
120	A finite strain Eulerian formulation for compressible and nearly incompressible hyperelasticity using high-order T-spline finite elements. International Journal for Numerical Methods in Engineering, 2012, 89, 762-785.	1.5	39
121	Mathematical modeling of coupled drug and drug-encapsulated nanoparticle transport in patient-specific coronary artery walls. Computational Mechanics, 2012, 49, 213-242.	2.2	86
122	Converting an unstructured quadrilateral mesh to a standard T-spline surface. Computational Mechanics, 2011, 48, 477-498.	2.2	64
123	New rectangular plate elements based on twist-Kirchhoff theory. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 2547-2561.	3.4	10
124	Isogeometric finite element data structures based on Bézier extraction of NURBS. International Journal for Numerical Methods in Engineering, 2011, 87, 15-47.	1.5	407
125	An isogeometric approach to cohesive zone modeling. International Journal for Numerical Methods in Engineering, 2011, 87, 336-360.	1.5	154
126	An isogeometric analysis approach to gradient damage models. International Journal for Numerical Methods in Engineering, 2011, 86, 115-134.	1.5	160

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127	Isogeometric finite element data structures based on B-spline extraction of T-splines. International Journal for Numerical Methods in Engineering, 2011, 88, 126-156.	1.5	268
128	Contact treatment in isogeometric analysis with NURBS. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1100-1112.	3.4	236
129	A large deformation, rotation-free, isogeometric shell. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1367-1378.	3.4	300
130	Provably unconditionally stable, second-order time-accurate, mixed variational methods for phase-field models. Journal of Computational Physics, 2011, 230, 5310-5327.	1.9	196
131	Isogeometric Failure Analysis. , 2011, , 275-282.		1
132	Isogeometric Analysis. , 2011, , .		0
133	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.	3.4	199
134	Isogeometric analysis of the isothermal Navier-Stokes-Korteweg equations. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1828-1840.	3.4	191
135	Stabilized Methods for Compressible Flows. Journal of Scientific Computing, 2010, 43, 343-368.	1.1	129
136	A generalized finite element formulation for arbitrary basis functions: From isogeometric analysis to XFEM. International Journal for Numerical Methods in Engineering, 2010, 83, 765-785.	1.5	213
137	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.	3.4	241
138	Efficient quadrature for NURBS-based isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 301-313.	3.4	426
139	Robustness of isogeometric structural discretizations under severe mesh distortion. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 357-373.	3.4	220
140	Isogeometric analysis using T-splines. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 229-263.	3.4	834
141	Isogeometric shell analysis: The Reissner-Mindlin shell. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 276-289.	3.4	551
142	An automatic 3D mesh generation method for domains with multiple materials. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 405-415.	3.4	146
143	Turbulence modeling for large eddy simulations. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 779.	3.4	3
144	ISOGEOMETRIC COLLOCATION METHODS. Mathematical Models and Methods in Applied Sciences, 2010, 20, 2075-2107.	1.7	308

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145	Modeling of Drug and Drug-Encapsulated Nanoparticle Transport in Patient-Specific Coronary Artery Walls to Treat Vulnerable Plaques. , 2010, , .		0
146	Variational Multiscale Theory of LES Turbulence Modeling. ERCOFTAC Series, 2010, , 99-108.	0.1	0
147	n-Widths, sup ^h -infs, and optimality ratios for the k-version of the isogeometric finite element method. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1726-1741.	3.4	231
148	Augmented Lagrangian method for constraining the shape of velocity profiles at outlet boundaries for three-dimensional finite element simulations of blood flow. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3551-3566.	3.4	84
149	Patient-specific isogeometric fluid-structure interaction analysis of thoracic aortic blood flow due to implantation of the Jarvik 2000 left ventricular assist device. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3534-3550.	3.4	347
150	Enforcement of constraints and maximum principles in the variational multiscale method. Computer Methods in Applied Mechanics and Engineering, 2009, 199, 61-76.	3.4	23
151	F-bar projection method for finite deformation elasticity and plasticity using NURBS based isogeometric analysis. International Journal of Material Forming, 2008, 1, 1091-1094.	0.9	12
152	NURBS-based isogeometric analysis for the computation of flows about rotating components. Computational Mechanics, 2008, 43, 143-150.	2.2	244
153	Isogeometric fluid-structure interaction: theory, algorithms, and computations. Computational Mechanics, 2008, 43, 3-37.	2.2	768
154	Multiphysics model for blood flow and drug transport with application to patient-specific coronary artery flow. Computational Mechanics, 2008, 43, 161-177.	2.2	54
155	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.	3.4	297
156	Duality and unified analysis of discrete approximations in structural dynamics and wave propagation: Comparison of p-method finite elements with k-method NURBS. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4104-4124.	3.4	329
157	Isogeometric analysis of the Cahn-Hilliard phase-field model. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4333-4352.	3.4	514
158	Automatic 3D Mesh Generation for a Domain with Multiple Materials. , 2008, , 367-386.		13
159	Variational Multiscale Analysis: the Fine-scale Green's Function, Projection, Optimization, Localization, and Stabilized Methods. SIAM Journal on Numerical Analysis, 2007, 45, 539-557.	1.1	216
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161	Stabilized shock hydrodynamics: I. A Lagrangian method. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 923-966.	3.4	77
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