

Charbel Farhat

List of Publications by Year in descending order

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231
papers

18,733
citations

10986

71
h-index

12946

131
g-index

235
all docs

235
docs citations

235
times ranked

5374
citing authors

#	ARTICLE	IF	CITATIONS
1	A method of finite element tearing and interconnecting and its parallel solution algorithm. International Journal for Numerical Methods in Engineering, 1991, 32, 1205-1227.	2.8	998
2	Partitioned analysis of coupled mechanical systems. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3247-3270.	6.6	557
3	Load and motion transfer algorithms for fluid/structure interaction problems with non-matching discrete interfaces: Momentum and energy conservation, optimal discretization and application to aeroelasticity. Computer Methods in Applied Mechanics and Engineering, 1998, 157, 95-114.	6.6	511
4	Interpolation Method for Adapting Reduced-Order Models and Application to Aeroelasticity. AIAA Journal, 2008, 46, 1803-1813.	2.6	497
5	FETI-DP: a dual-primal unified FETI method?part I: A faster alternative to the two-level FETI method. International Journal for Numerical Methods in Engineering, 2001, 50, 1523-1544.	2.8	489
6	Efficient non-linear model reduction via a least-squares Petrov-Galerkin projection and compressive tensor approximations. International Journal for Numerical Methods in Engineering, 2011, 86, 155-181.	2.8	438
7	The GNAT method for nonlinear model reduction: Effective implementation and application to computational fluid dynamics and turbulent flows. Journal of Computational Physics, 2013, 242, 623-647.	3.8	423
8	Torsional springs for two-dimensional dynamic unstructured fluid meshes. Computer Methods in Applied Mechanics and Engineering, 1998, 163, 231-245.	6.6	390
9	Two efficient staggered algorithms for the serial and parallel solution of three-dimensional nonlinear transient aeroelastic problems. Computer Methods in Applied Mechanics and Engineering, 2000, 182, 499-515.	6.6	372
10	Geometric conservation laws for flow problems with moving boundaries and deformable meshes, and their impact on aeroelastic computations. Computer Methods in Applied Mechanics and Engineering, 1996, 134, 71-90.	6.6	314
11	Mixed explicit/implicit time integration of coupled aeroelastic problems: Three-field formulation, geometric conservation and distributed solution. International Journal for Numerical Methods in Fluids, 1995, 21, 807-835.	1.6	307
12	Partitioned procedures for the transient solution of coupled aeroelastic problems Part I: Model problem, theory and two-dimensional application. Computer Methods in Applied Mechanics and Engineering, 1995, 124, 79-112.	6.6	305
13	The discontinuous enrichment method. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 6455-6479.	6.6	301
14	Nonlinear model order reduction based on local reduced-order bases. International Journal for Numerical Methods in Engineering, 2012, 92, 891-916.	2.8	293
15	Optimal convergence properties of the FETI domain decomposition method. Computer Methods in Applied Mechanics and Engineering, 1994, 115, 365-385.	6.6	290
16	The Discrete Geometric Conservation Law and the Nonlinear Stability of ALE Schemes for the Solution of Flow Problems on Moving Grids. Journal of Computational Physics, 2001, 174, 669-694.	3.8	289
17	Provably second-order time-accurate loosely-coupled solution algorithms for transient nonlinear computational aeroelasticity. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 1973-2001.	6.6	287
18	A simple and efficient automatic fem domain decomposer. Computers and Structures, 1988, 28, 579-602.	4.4	270

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19	A scalable dual-primal domain decomposition method. Numerical Linear Algebra With Applications, 2000, 7, 687-714.	1.6	267
20	Reduced-order fluid/structure modeling of a complete aircraft configuration. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5730-5742.	6.6	259
21	A three-dimensional torsional spring analogy method for unstructured dynamic meshes. Computers and Structures, 2002, 80, 305-316.	4.4	258
22	Partitioned procedures for the transient solution of coupled aeroelastic problems – Part II: energy transfer analysis and three-dimensional applications. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3147-3170.	6.6	247
23	Updating finite element dynamic models using an element-by-element sensitivity methodology. AIAA Journal, 1993, 31, 1702-1711.	2.6	244
24	Multiphysics simulations. International Journal of High Performance Computing Applications, 2013, 27, 4-83.	3.7	244
25	An Online Method for Interpolating Linear Parametric Reduced-Order Models. SIAM Journal of Scientific Computing, 2011, 33, 2169-2198.	2.8	232
26	Dimensional reduction of nonlinear finite element dynamic models with finite rotations and energy-based mesh sampling and weighting for computational efficiency. International Journal for Numerical Methods in Engineering, 2014, 98, 625-662.	2.8	219
27	Application of a three-field nonlinear fluid-structure formulation to the prediction of the aeroelastic parameters of an F-16 fighter. Computers and Fluids, 2003, 32, 3-29.	2.5	202
28	A discontinuous Galerkin method with Lagrange multipliers for the solution of Helmholtz problems in the mid-frequency regime. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 1389-1419.	6.6	200
29	Bubble functions prompt unusual stabilized finite element methods. Computer Methods in Applied Mechanics and Engineering, 1995, 123, 299-308.	6.6	178
30	Automatic partitioning of unstructured meshes for the parallel solution of problems in computational mechanics. International Journal for Numerical Methods in Engineering, 1993, 36, 745-764.	2.8	176
31	Structure-preserving, stability, and accuracy properties of the energy-conserving sampling and weighting method for the hyper reduction of nonlinear finite element dynamic models. International Journal for Numerical Methods in Engineering, 2015, 102, 1077-1110.	2.8	175
32	Time-decomposed parallel time-integrators: theory and feasibility studies for fluid, structure, and fluid-structure applications. International Journal for Numerical Methods in Engineering, 2003, 58, 1397-1434.	2.8	164
33	Aeroelastic Dynamic Analysis of a Full F-16 Configuration for Various Flight Conditions. AIAA Journal, 2003, 41, 363-371.	2.6	164
34	On the significance of the geometric conservation law for flow computations on moving meshes. Computer Methods in Applied Mechanics and Engineering, 2000, 190, 1467-1482.	6.6	162
35	A method for interpolating on manifolds structural dynamics reduced-order models. International Journal for Numerical Methods in Engineering, 2009, 80, 1241-1258.	2.8	161
36	An Unconventional Domain Decomposition Method for an Efficient Parallel Solution of Large-Scale Finite Element Systems. SIAM Journal on Scientific and Statistical Computing, 1992, 13, 379-396.	1.5	157

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37	Second-order time-accurate and geometrically conservative implicit schemes for flow computations on unstructured dynamic meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1999, 170, 103-129.	6.6	150
38	Stabilization of projection-based reduced-order models. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 91, 358-377.	2.8	144
39	A variational multiscale method for the large eddy simulation of compressible turbulent flows on unstructured meshes—application to vortex shedding. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 1367-1383.	6.6	139
40	Matching fluid and structure meshes for aeroelastic computations: A parallel approach. <i>Computers and Structures</i> , 1995, 54, 779-785.	4.4	138
41	Adaptation of Aeroelastic Reduced-Order Models and Application to an F-16 Configuration. <i>AIAA Journal</i> , 2007, 45, 1244-1257.	2.6	138
42	Residual-free bubbles for the Helmholtz equation. <i>International Journal for Numerical Methods in Engineering</i> , 1997, 40, 4003-4009.	2.8	136
43	The two-level FETI method for static and dynamic plate problems Part I: An optimal iterative solver for biharmonic systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998, 155, 129-151.	6.6	132
44	The second generation FETI methods and their application to the parallel solution of large-scale linear and geometrically non-linear structural analysis problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 184, 333-374.	6.6	127
45	A simple and efficient extension of a class of substructure based preconditioners to heterogeneous structural mechanics problems. <i>International Journal for Numerical Methods in Engineering</i> , 1999, 44, 489-516.	2.8	120
46	Sensitivity analysis and design optimization of three-dimensional non-linear aeroelastic systems by the adjoint method. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 56, 911-933.	2.8	119
47	Design and analysis of ALE schemes with provable second-order time-accuracy for inviscid and viscous flow simulations. <i>Journal of Computational Physics</i> , 2003, 191, 206-227.	3.8	119
48	Towards Real-Time Computational-Fluid-Dynamics-Based Aeroelastic Computations Using a Database of Reduced-Order Information. <i>AIAA Journal</i> , 2010, 48, 2029-2037.	2.6	114
49	Two-level domain decomposition methods with Lagrange multipliers for the fast iterative solution of acoustic scattering problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 184, 213-239.	6.6	109
50	A two-level domain decomposition method for the iterative solution of high frequency exterior Helmholtz problems. <i>Numerische Mathematik</i> , 2000, 85, 283-308.	1.9	109
51	Dynamic implosion of underwater cylindrical shells: Experiments and Computations. <i>International Journal of Solids and Structures</i> , 2013, 50, 2943-2961.	2.7	106
52	Design optimization using hyper-reduced-order models. <i>Structural and Multidisciplinary Optimization</i> , 2015, 51, 919-940.	3.5	106
53	A scalable Lagrange multiplier based domain decomposition method for time-dependent problems. <i>International Journal for Numerical Methods in Engineering</i> , 1995, 38, 3831-3853.	2.8	104
54	Progressive construction of a parametric reduced-order model for PDE-constrained optimization. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 102, 1111-1135.	2.8	101

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55	A higher-order generalized ghost fluid method for the poor for the three-dimensional two-phase flow computation of underwater implosions. <i>Journal of Computational Physics</i> , 2008, 227, 7674-7700.	3.8	100
56	Higher-Order Subiteration-Free Staggered Algorithm for Nonlinear Transient Aeroelastic Problems. <i>AIAA Journal</i> , 1998, 36, 1754-1757.	2.6	98
57	A parallel active column equation solver. <i>Computers and Structures</i> , 1988, 28, 289-304.	4.4	90
58	A numerically scalable domain decomposition method for the solution of frictionless contact problems. <i>International Journal for Numerical Methods in Engineering</i> , 2001, 50, 2643-2666.	2.8	88
59	A new finite element concurrent computer program architecture. <i>International Journal for Numerical Methods in Engineering</i> , 1987, 24, 1771-1792.	2.8	87
60	The two-level FETI method Part II: Extension to shell problems, parallel implementation and performance results. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998, 155, 153-179.	6.6	86
61	Robust and provably second-order explicit-explicit and implicit-explicit staggered time-integrators for highly nonlinear compressible fluid-structure interaction problems. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 84, 73-107.	2.8	86
62	Learning constitutive relations from indirect observations using deep neural networks. <i>Journal of Computational Physics</i> , 2020, 416, 109491.	3.8	86
63	FETI-DPH: A DUAL-PRIMAL DOMAIN DECOMPOSITION METHOD FOR ACOUSTIC SCATTERING. <i>Journal of Computational Acoustics</i> , 2005, 13, 499-524.	1.0	85
64	Application of the FETI method to ASCI problems?scalability results on 1000 processors and discussion of highly heterogeneous problems. <i>International Journal for Numerical Methods in Engineering</i> , 2000, 47, 513-535.	2.8	84
65	Design and analysis of robust ALE time-integrators for the solution of unsteady flow problems on moving grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 4073-4095.	6.6	84
66	Algorithms for interface treatment and load computation in embedded boundary methods for fluid and fluid-structure interaction problems. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 67, 1175-1206.	1.6	83
67	A transient FETI methodology for large-scale parallel implicit computations in structural mechanics. <i>International Journal for Numerical Methods in Engineering</i> , 1994, 37, 1945-1975.	2.8	78
68	Extending substructure based iterative solvers to multiple load and repeated analyses. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994, 117, 195-209.	6.6	78
69	A low-cost, goal-oriented compact proper orthogonal decomposition™ basis for model reduction of static systems. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 381-402.	2.8	78
70	On the general solution by a direct method of a large-scale singular system of linear equations: application to the analysis of floating structures. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 41, 675-696.	2.8	77
71	An unconditionally stable staggered algorithm for transient finite element analysis of coupled thermoelastic problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1991, 85, 349-365.	6.6	76
72	On a component mode synthesis method and its application to incompatible substructures. <i>Computers and Structures</i> , 1994, 51, 459-473.	4.4	74

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73	The discontinuous enrichment method for multiscale analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003, 192, 3195-3209.	6.6	74
74	TOP/DOMDEC—A software tool for mesh partitioning and parallel processing. <i>Computing Systems in Engineering: an International Journal</i> , 1995, 6, 13-26.	0.5	70
75	Three-dimensional discontinuous Galerkin elements with plane waves and Lagrange multipliers for the solution of mid-frequency Helmholtz problems. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 66, 796-815.	2.8	70
76	A general approach to nonlinear FE computations on shared-memory multiprocessors. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1989, 72, 153-171.	6.6	69
77	FIVER: A finite volume method based on exact two-phase Riemann problems and sparse grids for multi-material flows with large density jumps. <i>Journal of Computational Physics</i> , 2012, 231, 6360-6379.	3.8	69
78	Time-parallel implicit integrators for the near-real-time prediction of linear structural dynamic responses. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 67, 697-724.	2.8	68
79	A linearized method for the frequency analysis of three-dimensional fluid/structure interaction problems in all flow regimes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001, 190, 3121-3146.	6.6	66
80	A lagrange multiplier based divide and conquer finite element algorithm. <i>Computing Systems in Engineering: an International Journal</i> , 1991, 2, 149-156.	0.5	65
81	Mesh partitioning for implicit computations via iterative domain decomposition: Impact and optimization of the subdomain aspect ratio. <i>International Journal for Numerical Methods in Engineering</i> , 1995, 38, 989-1000.	2.8	65
82	On the stability of projection-based model order reduction for convection-dominated laminar and turbulent flows. <i>Journal of Computational Physics</i> , 2020, 419, 109681.	3.8	64
83	Review and assessment of interpolatory model order reduction methods for frequency response structural dynamics and acoustics problems. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 1636-1662.	2.8	61
84	Higher-order extensions of a discontinuous Galerkin method for mid-frequency Helmholtz problems. <i>International Journal for Numerical Methods in Engineering</i> , 2004, 61, 1938-1956.	2.8	60
85	A Scalable Substructuring Method by Lagrange Multipliers for Plate Bending Problems. <i>SIAM Journal on Numerical Analysis</i> , 1999, 36, 1370-1391.	2.3	58
86	A mechanics—formed artificial neural network approach in data—driven constitutive modeling. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 2738-2759.	2.8	58
87	A unified framework for accelerating the convergence of iterative substructuring methods with Lagrange multipliers. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 42, 257-288.	2.8	55
88	An ALE formulation of embedded boundary methods for tracking boundary layers in turbulent fluid—structure interaction problems. <i>Journal of Computational Physics</i> , 2014, 263, 53-70.	3.8	55
89	Computational algorithms for tracking dynamic fluid—structure interfaces in embedded boundary methods. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 70, 515-535.	1.6	54
90	Solution of finite element systems on concurrent processing computers. <i>Engineering With Computers</i> , 1987, 2, 157-165.	6.1	53

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91	Three-dimensional finite element calculations in acoustic scattering using arbitrarily shaped convex artificial boundaries. <i>International Journal for Numerical Methods in Engineering</i> , 2002, 53, 1461-1476.	2.8	53
92	A computational framework for the simulation of high-speed multi-material fluid-structure interaction problems with dynamic fracture. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 104, 585-623.	2.8	53
93	Theoretical comparison of the FETI and algebraically partitioned FETI methods, and performance comparisons with a direct sparse solver. <i>International Journal for Numerical Methods in Engineering</i> , 1999, 46, 501-533.	2.8	52
94	On the solution of three-dimensional inverse obstacle acoustic scattering problems by a regularized Newton method. <i>Inverse Problems</i> , 2002, 18, 1229-1246.	2.0	52
95	Accelerated mesh sampling for the hyper reduction of nonlinear computational models. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 109, 1623-1654.	2.8	50
96	Two-dimensional viscous flow computations on the Connecti on Machine: Unstructured meshes, upwind schemes and massively parallel computations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993, 102, 61-88.	6.6	47
97	A modular multibody analysis capability for high-precision, active control and real-time applications. <i>International Journal for Numerical Methods in Engineering</i> , 1991, 32, 1767-1798.	2.8	46
98	Modeling of Fuel Sloshing and its Physical Effects on Flutter. <i>AIAA Journal</i> , 2013, 51, 2252-2265.	2.6	46
99	A numerically scalable dual-primal substructuring method for the solution of contact problems—part I: the frictionless case. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 2403-2426.	6.6	44
100	A discontinuous enrichment method for capturing evanescent waves in multiscale fluid and fluid/solid problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 1680-1698.	6.6	44
101	Salinas: A Scalable Software for High-Performance Structural and Solid Mechanics Simulations. , 2002, , .		42
102	A dynamic variational multiscale method for large eddy simulations on unstructured meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 1667-1691.	6.6	42
103	A space-time discontinuous Galerkin method for the solution of the wave equation in the time domain. <i>International Journal for Numerical Methods in Engineering</i> , 2009, 78, 275-295.	2.8	42
104	A multilevel projection-based model order reduction framework for nonlinear dynamic multiscale problems in structural and solid mechanics. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 112, 855-881.	2.8	42
105	Simulation of compressible viscous flows on a variety of MPPs: computational algorithms for unstructured dynamic meshes and performance results. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994, 119, 35-60.	6.6	41
106	Incorporation of linear multipoint constraints in substructure based iterative solvers. Part 1: a numerically scalable algorithm. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 43, 997-1016.	2.8	41
107	The discontinuous enrichment method for elastic wave propagation in the medium-frequency regime. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 66, 2086-2114.	2.8	41
108	A FETI-preconditioned conjugate gradient method for large-scale stochastic finite element problems. <i>International Journal for Numerical Methods in Engineering</i> , 2009, 80, 914-931.	2.8	40

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109	Gradient-based constrained optimization using a database of linear reduced-order models. <i>Journal of Computational Physics</i> , 2020, 423, 109787.	3.8	40
110	A discontinuous Galerkin method with plane waves and Lagrange multipliers for the solution of short wave exterior Helmholtz problems on unstructured meshes. <i>Wave Motion</i> , 2004, 39, 307-317.	2.0	39
111	Fast frequency sweep computations using a multi-point Pad�-based reconstruction method and an efficient iterative solver. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 69, 2848-2875.	2.8	39
112	Implicit time integration of a class of constrained hybrid formulations�Part I: Spectral stability theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1995, 125, 71-107.	6.6	38
113	The FETI family of domain decomposition methods for inequality-constrained quadratic programming: Application to contact problems with conforming and nonconforming interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 1673-1683.	6.6	38
114	A domain decomposition method for discontinuous Galerkin discretizations of Helmholtz problems with plane waves and Lagrange multipliers. <i>International Journal for Numerical Methods in Engineering</i> , 2009, 78, 1513-1531.	2.8	36
115	A systematic approach for constructing higher-order immersed boundary and ghost fluid methods for fluid�structure interaction problems. <i>Journal of Computational Physics</i> , 2012, 231, 2892-2923.	3.8	36
116	A nonparametric probabilistic approach for quantifying uncertainties in low�dimensional and high�dimensional nonlinear models. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 109, 837-888.	2.8	36
117	Transient finite element computations on 65536 processors: The connection machine. <i>International Journal for Numerical Methods in Engineering</i> , 1990, 30, 27-55.	2.8	34
118	Strain and stress computations in stochastic finite element methods. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 74, 1219-1239.	2.8	34
119	On-Demand CFD-Based Aeroelastic Predictions Using a Database of Reduced-Order Bases and Models. , 2009, , .		33
120	Overview of the discontinuous enrichment method, the ultra�weak variational formulation, and the partition of unity method for acoustic scattering in the medium frequency regime and performance comparisons. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 89, 403-417.	2.8	33
121	Projection�based model reduction for contact problems. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 106, 644-663.	2.8	33
122	Mesh adaptation framework for embedded boundary methods for computational fluid dynamics and fluid�structure interaction. <i>International Journal for Numerical Methods in Fluids</i> , 2019, 90, 389-424.	1.6	33
123	Unusual stabilized finite element methods and residual free bubbles. <i>International Journal for Numerical Methods in Fluids</i> , 1998, 27, 159-168.	1.6	32
124	An adaptive scheme for a class of interpolatory model reduction methods for frequency response problems. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 93, 1109-1124.	2.8	32
125	A FETI-DP method for the parallel iterative solution of indefinite and complex-valued solid and shell vibration problems. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 63, 398-427.	2.8	31
126	Mesh sampling and weighting for the hyperreduction of nonlinear Petrov�Galerkin reduced�order models with local reduced�order bases. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 1846-1874.	2.8	31

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127	Geometric conservation laws for aeroelastic computations using unstructured dynamic meshes. , 1995, , .		30
128	A discontinuous enrichment method for the finite element solution of high PÅ©clet advectionâ€“diffusion problems. Finite Elements in Analysis and Design, 2009, 45, 238-250.	3.2	30
129	Convergence Analysis of a Discontinuous Galerkin Method with Plane Waves and Lagrange Multipliers for the Solution of Helmholtz Problems. SIAM Journal on Numerical Analysis, 2009, 47, 1038-1066.	2.3	30
130	An enhanced FIVER method for multi-material flow problems with second-order convergence rate. Journal of Computational Physics, 2017, 329, 141-172.	3.8	30
131	A Fast Method for Solving Acoustic Scattering Problems in Frequency Bands. Journal of Computational Physics, 2001, 168, 412-432.	3.8	29
132	FINITE ELEMENT SOLUTION OF TWO-DIMENSIONAL ACOUSTIC SCATTERING PROBLEMS USING ARBITRARILY SHAPED CONVEX ARTIFICIAL BOUNDARIES. Journal of Computational Acoustics, 2000, 08, 81-99.	1.0	28
133	Quadratic approximation manifold for mitigating the Kolmogorov barrier in nonlinear projection-based model order reduction. Journal of Computational Physics, 2022, 464, 111348.	3.8	28
134	Shape Optimization Methodology for Reducing the Sonic Boom Initial Pressure Rise. AIAA Journal, 2007, 45, 1007-1018.	2.6	27
135	A timeâ€“parallel implicit method for accelerating the solution of nonâ€“linear structural dynamics problems. International Journal for Numerical Methods in Engineering, 2009, 77, 451-470.	2.8	27
136	A family of position- and orientation-independent embedded boundary methods for viscous flow and fluidâ€“structure interaction problems. Journal of Computational Physics, 2018, 365, 74-104.	3.8	27
137	An embedded boundary framework for compressible turbulent flow and fluidâ€“structure computations on structured and unstructured grids. International Journal for Numerical Methods in Fluids, 2014, 76, 366-395.	1.6	26
138	A multilevel FETIâ€“DP method and its performance for problems with billions of degrees of freedom. International Journal for Numerical Methods in Engineering, 2018, 116, 661-682.	2.8	26
139	Iterative solution of largeâ€“scale acoustic scattering problems with multiple right handâ€“sides by a domain decomposition method with Lagrange multipliers. International Journal for Numerical Methods in Engineering, 2001, 51, 1175-1193.	2.8	25
140	A discontinuous enrichment method for variableâ€“coefficient advectionâ€“diffusion at high PÅ©clet number. International Journal for Numerical Methods in Engineering, 2011, 87, 309-335.	2.8	25
141	Reduction of nonlinear embedded boundary models for problems with evolving interfaces. Journal of Computational Physics, 2014, 274, 489-504.	3.8	25
142	Real-time solution of linear computational problems using databases of parametric reduced-order models with arbitrary underlying meshes. Journal of Computational Physics, 2016, 326, 373-397.	3.8	25
143	On the Use of Discrete Nonlinear Reduced-Order Models for the Prediction of Steady-State Flows Past Parametrically Deformed Complex Geometries. , 2016, , .		25
144	An iterative domain decomposition method for the solution of a class of indefinite problems in computational structural dynamics. Applied Numerical Mathematics, 2005, 54, 150-166.	2.1	24

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145	A discontinuous enrichment method for three-dimensional multiscale harmonic wave propagation problems in multi-fluid and fluid-solid media. International Journal for Numerical Methods in Engineering, 2008, 76, 400-425.	2.8	24
146	The discontinuous enrichment method for medium-frequency Helmholtz problems with a spatially variable wavenumber. Computer Methods in Applied Mechanics and Engineering, 2014, 268, 126-140.	6.6	24
147	Simulation of Parachute Inflation Dynamics Using an Eulerian Computational Framework for Fluid-Structure Interfaces Evolving in High-Speed Turbulent Flows. , 2018, , .		24
148	Compressed Sensing and Time-Parallel Reduced-Order Modeling for Structural Health Monitoring Using a DDDAS. Lecture Notes in Computer Science, 2007, , 1171-1179.	1.3	24
149	Stability analysis of dynamic meshes for transient aeroelastic computations. , 1993, , .		23
150	Multidisciplinary Simulation of the Maneuvering of an Aircraft. Engineering With Computers, 2001, 17, 16-27.	6.1	23
151	Nonlinear Model Reduction for CFD Problems Using Local Reduced-Order Bases. , 2012, , .		23
152	A higher-order discontinuous enrichment method for the solution of high Péclet advection-diffusion problems on unstructured meshes. International Journal for Numerical Methods in Engineering, 2010, 81, 604-636.	2.8	22
153	Feasible Probabilistic Learning Method for Model-Form Uncertainty Quantification in Vibration Analysis. AIAA Journal, 2019, 57, 4978-4991.	2.6	22
154	Parallel/vector improvements of the frontal method. International Journal for Numerical Methods in Engineering, 1991, 32, 1267-1281.	2.8	21
155	Probabilistic learning for modeling and quantifying model-form uncertainties in nonlinear computational mechanics. International Journal for Numerical Methods in Engineering, 2019, 117, 819-843.	2.8	21
156	CFD on moving grids: from theory to realistic flutter, maneuvering, and multidisciplinary optimization. International Journal of Computational Fluid Dynamics, 2005, 19, 595-603.	1.2	20
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