Charbel Farhat

List of Publications by Year
in descending order

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231	19,194	10475	13250
papers	citations	72 h-index	132 g-index

237	237	237	5885
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spaceâ€local reducedâ€order bases for accelerating reducedâ€order models through sparsity. International Journal for Numerical Methods in Engineering, 2023, 124, 1646-1671.	2.9	0
2	Displacementâ€based partitioned equations of motion for structures: Formulation and proofâ€ofâ€concept applications. International Journal for Numerical Methods in Engineering, 2023, 124, 5020-5046.	2.9	4
3	Aerodynamic Optimization with Large Shape and Topology Changes using Embedded Boundary Method. , 2022, , .		0
4	A Mechanics-Informed Artificial Neural Network Approach in Data-Driven Constitutive Modeling. , 2022, , .		4
5	Validation of a High-Fidelity Supersonic Parachute Inflation Dynamics Model and Best Practice. , 2022, , .		9
6	Dimensionality Reduction of Embedded Boundary Models for Problems with Large Shape Changes. , 2022, , .		1
7	Large-Eddy Simulation of Supersonic Retropropulsion Test at NASA Langley Unitary Plan Wind Tunnel. , 2022, , .		2
8	A mechanicsâ€informed artificial neural network approach in dataâ€driven constitutive modeling. International Journal for Numerical Methods in Engineering, 2022, 123, 2738-2759.	2.9	80
9	Update: Modeling Supersonic Parachute Inflations for Mars Spacecraft. , 2022, , .		3
10	Linear Reduced-Order Model Predictive Control. IEEE Transactions on Automatic Control, 2022, 67, 5980-5995.	6.0	8
11	Quadratic approximation manifold for mitigating the Kolmogorov barrier in nonlinear projection-based model order reduction. Journal of Computational Physics, 2022, 464, 111348.	3.9	39
12	A physics-based digital twin for model predictive control of autonomous unmanned aerial vehicle landing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.5	14
13	Model Reduction Framework with a New Take on Active Subspaces for Optimization Problems with Linearized Fluidâ€Structure Interaction Constraints. International Journal for Numerical Methods in Engineering, 2021, 122, 5450-5481.	2.9	12
14	Discrete embedded boundary method with smooth dependence on the evolution of a fluidâ€structure interface. International Journal for Numerical Methods in Engineering, 2021, 122, 5353-5383.	2.9	12
15	An embedded boundary approach for resolving the contribution of cable subsystems to fully coupled fluidâ€structure interaction. International Journal for Numerical Methods in Engineering, 2021, 122, 5409-5429.	2.9	11
16	Mesh sampling and weighting for the hyperreduction of nonlinear Petrovâ€“Galerkin reducedâ€order models with local reducedâ€order bases. International Journal for Numerical Methods in Engineering, 2021, 122, 1846-1874.	2.9	31
17	Aerodynamic Shape Optimization using an Embedded Boundary Method with Smoothness Guarantees. , 2021, , .		1
18	Active Manifold and Model Reduction for Multidisciplinary Analysis and Optimization. , 2021, , .		1

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19	A computationally tractable framework for nonlinear dynamic multiscale modeling of membrane woven fabrics. International Journal for Numerical Methods in Engineering, 2021, 122, 2598-2625.	2.9	21
20	Homogenized Flux-Body Force Treatment of Compressible Viscous Porous Wall Boundary Conditions. AIAA Journal, 2021, 59, 2045-2059.	2.6	3
21	The DGDD method for reduced-order modeling of conservation laws. Journal of Computational Physics, 2021, 437, 110336.	3.9	13
22	Active Manifold and Model-Order Reduction to Accelerate Multidisciplinary Analysis and Optimization. AIAA Journal, 2021, 59, 4739-4753.	2.6	18
23	Hyperreduction of CFD Models of Turbulent Flows using a Machine Learning Approach. , 2020, , .		5
24	Fast Neural Network Predictions from Constrained Aerodynamics Datasets. , 2020, , .		10
25	Gradient-based constrained optimization using a database of linear reduced-order models. Journal of Computational Physics, 2020, 423, 109787.	3.9	50
26	On the stability of projection-based model order reduction for convection-dominated laminar and turbulent flows. Journal of Computational Physics, 2020, 419, 109681.	3.9	70
27	In situ adaptive reduction of nonlinear multiscale structural dynamics models. International Journal for Numerical Methods in Engineering, 2020, 121, 4971-4988.	2.9	14
28	Projection-based Model Order Reduction for Flight Dynamics and Model Predictive Control. , 2020, , .		3
29	Modeling, Simulation and Validation of Supersonic Parachute Inflation Dynamics during Mars Landing. , 2020, , .		16
30	Learning constitutive relations from indirect observations using deep neural networks. Journal of Computational Physics, 2020, 416, 109491.	3.9	98
31	Towards a Validated FSI Computational Framework for Supersonic Parachute Deployments. , 2019, , .		5
32	Feasible Probabilistic Learning Method for Model-Form Uncertainty Quantification in Vibration Analysis. AIAA Journal, 2019, 57, 4978-4991.	2.6	24
33	Mesh adaptation framework for embedded boundary methods for computational fluid dynamics and fluidâ€structure interaction. International Journal for Numerical Methods in Fluids, 2019, 90, 389-424.	1.7	33
34	Fast computation of the wall distance in unsteady Eulerian fluidâ€structure computations. International Journal for Numerical Methods in Fluids, 2019, 89, 143-161.	1.7	6
35	Probabilistic learning for modeling and quantifying modelâ€form uncertainties in nonlinear computational mechanics. International Journal for Numerical Methods in Engineering, 2019, 117, 819-843.	2.9	22
36	Parameterization Framework for the MDAO of Wing Structural Layouts. AIAA Journal, 2018, 56, 1627-1638.	2.6	5

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37	A Stochastic Projection-Based Hyperreduced Order Model for Model-Form Uncertainties in Vibration Analysis. , 2018, , .		3
38	An Adaptive Mesh Refinement Concept for Viscous Fluid-Structure Computations Using Eulerian Vertex-Based Finite Volume Methods. , 2018, , .		8
39	Simulation of Parachute Inflation Dynamics Using an Eulerian Computational Framework for Fluid-Structure Interfaces Evolving in High-Speed Turbulent Flows. , 2018, , .		25
40	Evaluation of an Advanced Suite of Numerical Codes for Structural Simulation of Parachute Fabric. , 2018, , .		3
41	Preliminary Verification and Validation Test Suite for the CFD Component of Supersonic Parachute Deployment FSI Simulations. , 2018, , .		6
42	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.	3.9	27
43	Modeling and Quantification of Model-Form Uncertainties in Eigenvalue Computations Using a Stochastic Reduced Model. AIAA Journal, 2018, 56, 1198-1210.	2.6	21
44	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.	2.9	27
45	A nonparametric probabilistic approach for quantifying uncertainties in lowâ€dimensional and highâ€dimensional nonlinear models. International Journal for Numerical Methods in Engineering, 2017, 109, 837-888.	2.9	38
46	A high-order discontinuous Galerkin method for unsteady advectionâ€“diffusion problems. Journal of Computational Physics, 2017, 332, 520-537.	3.9	12
47	A multilevel projectionâ€based model order reduction framework for nonlinear dynamic multiscale problems in structural and solid mechanics. International Journal for Numerical Methods in Engineering, 2017, 112, 855-881.	2.9	44
48	A discontinuous Galerkin method with Lagrange multipliers for spatially-dependent advectionâ€“diffusion problems. Computer Methods in Applied Mechanics and Engineering, 2017, 327, 93-117.	6.7	13
49	Towards Model Order Reduction for Uncertainty Propagation in Blast-Induced Traumatic Brain Injury. , 2017, , .		2
50	An enhanced FIVER method for multi-material flow problems with second-order convergence rate. Journal of Computational Physics, 2017, 329, 141-172.	3.9	31
51	Accelerated mesh sampling for the hyper reduction of nonlinear computational models. International Journal for Numerical Methods in Engineering, 2017, 109, 1623-1654.	2.9	52
52	Projectionâ€based model reduction for contact problems. International Journal for Numerical Methods in Engineering, 2016, 106, 644-663.	2.9	37
53	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.	3.9	25
54	Gradient based aerodynamic shape optimization using the FIVER embedded boundary method. , 2016, , .		2

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55	A High-order Discontinuous Galerkin Method for Unsteady Flow Problems. , 2016, , .		1
56	On the Use of Discrete Nonlinear Reduced-Order Models for the Prediction of Steady-State Flows Past Parametrically Deformed Complex Geometries. , 2016, , .		25
57	Special Issue on Model Reduction. International Journal for Numerical Methods in Engineering, 2015, 102, 931-932.	2.9	8
58	Structureâ€preserving, stability, and accuracy properties of the energyâ€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.	2.9	189
59	Progressive construction of a parametric reducedâ€order model for PDEâ€constrained optimization. International Journal for Numerical Methods in Engineering, 2015, 102, 1111-1135.	2.9	107
60	A Practical Factorization of a Schur Complement for PDE-Constrained Distributed Optimal Control. Journal of Scientific Computing, 2015, 65, 576-597.	2.4	15
61	A computational framework for the simulation of highâ€speed multiâ€material fluidâ€“structure interaction problems with dynamic fracture. International Journal for Numerical Methods in Engineering, 2015, 104, 585-623.	2.9	55
62	Design optimization using hyper-reduced-order models. Structural and Multidisciplinary Optimization, 2015, 51, 919-940.	3.6	116
63	Nonlinear Aeroelastic Analysis of Highly Flexible Flapping Wings Using an ALE Formulation of Embedded Boundary Method. , 2014, , .		5
64	A hybrid discontinuous in space and time Galerkin method for wave propagation problems. International Journal for Numerical Methods in Engineering, 2014, 99, 263-289.	2.9	14
65	Dimensional reduction of nonlinear finite element dynamic models with finite rotations and energyâ€based mesh sampling and weighting for computational efficiency. International Journal for Numerical Methods in Engineering, 2014, 98, 625-662.	2.9	233
66	An ALE formulation of embedded boundary methods for tracking boundary layers in turbulent fluidâ€“structure interaction problems. Journal of Computational Physics, 2014, 263, 53-70.	3.9	57
67	A second-order time-accurate implicit finite volume method with exact two-phase Riemann problems for compressible multi-phase fluid and fluidâ€“structure problems. Journal of Computational Physics, 2014, 258, 613-633.	3.9	20
68	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.	1.7	27
69	Reduction of nonlinear embedded boundary models for problems with evolving interfaces. Journal of Computational Physics, 2014, 274, 489-504.	3.9	25
70	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.	6.7	24
71	Predictive Simulation of Underwater Implosion: Coupling Multi-Material Compressible Fluids With Cracking Structures. , 2014, , .		5
72	On the Stability of Reduced-Order Linearized Computational Fluid Dynamics Models Based on POD and Galerkin Projection: Descriptor vs Non-Descriptor Forms. Modeling, Simulation and Applications, 2014, , 215-233.	0.0	7

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73	Modeling of Fuel Sloshing and its Physical Effects on Flutter. AIAA Journal, 2013, 51, 2252-2265.	2.6	47
74	Multiphysics simulations. International Journal of High Performance Computing Applications, 2013, 27, 4-83.	3.8	263
75	Dynamic implosion of underwater cylindrical shells: Experiments and Computations. International Journal of Solids and Structures, 2013, 50, 2943-2961.	2.7	107
76	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.	3.9	446
77	A high-order discontinuous Galerkin method with Lagrange multipliers for advectionâ€“diffusion problems. Computer Methods in Applied Mechanics and Engineering, 2013, 264, 49-66.	6.7	11
78	An ALE-Eulerian Formulation of Embedded Boundary Methods for Turbulent Fluid-Structure Interaction Problems. , 2013, , .		3
79	An adaptive scheme for a class of interpolatory model reduction methods for frequency response problems. International Journal for Numerical Methods in Engineering, 2013, 93, 1109-1124.	2.9	32
80	Construction of Parametrically-Robust CFD-Based Reduced-Order Models for PDE-Constrained Optimization. , 2013, , .		7
81	On the Accuracy and Convergence of Minimum-Residual-Based Nonlinear Reduced-Order Models in CFD. , 2013, , .		0
82	A Domain Decomposition Solver for the Discontinuous Enrichment Method for the Helmholtz Equation. Lecture Notes in Computational Science and Engineering, 2013, , 207-214.	0.0	0
83	On the Stability of Linearized Reduced-Order Models: Descriptor vs. Non-Descriptor Form and Application to Fluid-Structure Interaction. , 2012, , .		6
84	Nonlinear Model Reduction for CFD Problems Using Local Reduced-Order Bases. , 2012, , .		26
85	FIVER: A finite volume method based on exact two-phase Riemann problems and sparse grids for multi-material flows with large density jumps. Journal of Computational Physics, 2012, 231, 6360-6379.	3.9	71
86	An Embedded Boundary Method for Viscous Fluid/Structure Interaction Problems and Application to Flexible Flapping Wings. , 2012, , .		2
87	Review and assessment of interpolatory model order reduction methods for frequency response structural dynamics and acoustics problems. International Journal for Numerical Methods in Engineering, 2012, 90, 1636-1662.	2.9	65
88	Nonlinear model order reduction based on local reducedâ€order bases. International Journal for Numerical Methods in Engineering, 2012, 92, 891-916.	2.9	315
89	Provably stable and timeâ€accurate extensions of Rungeâ€“Kutta schemes for CFD computations on moving grids. International Journal for Numerical Methods in Fluids, 2012, 69, 1249-1270.	1.7	3
90	Computational algorithms for tracking dynamic fluidâ€“structure interfaces in embedded boundary methods. International Journal for Numerical Methods in Fluids, 2012, 70, 515-535.	1.7	55

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91	A systematic approach for constructing higher-order immersed boundary and ghost fluid methods for fluidâ€“structure interaction problems. Journal of Computational Physics, 2012, 231, 2892-2923.	3.9	38
92	A hybrid discontinuous Galerkin method for computing the ground state solution of Boseâ€“Einstein condensates. Journal of Computational Physics, 2012, 231, 4709-4722.	3.9	3
93	Overview of the discontinuous enrichment method, the ultraâ€weak variational formulation, and the partition of unity method for acoustic scattering in the medium frequency regime and performance comparisons. International Journal for Numerical Methods in Engineering, 2012, 89, 403-417.	2.9	33
94	A dualâ€primal FETI method for solving a class of fluidâ€“structure interaction problems in the frequency domain. International Journal for Numerical Methods in Engineering, 2012, 89, 418-437.	2.9	12
95	Stabilization of projectionâ€based reducedâ€order models. International Journal for Numerical Methods in Engineering, 2012, 91, 358-377.	2.9	147
96	The GNAT nonlinear model reduction method and its application to fluid dynamics problems. , 2011, , .		18
97	A Systematic Procedure for Achieving Higher-Order Spatial Accuracy in Ghost Fluid and Other Embedded Boundary Methods for Fluid-Structure Interaction Problems. , 2011, , .		0
98	An Online Method for Interpolating Linear Parametric Reduced-Order Models. SIAM Journal of Scientific Computing, 2011, 33, 2169-2198.	2.8	236
99	Efficient nonâ€linear model reduction via a leastâ€squares Petrovâ€“Galerkin projection and compressive tensor approximations. International Journal for Numerical Methods in Engineering, 2011, 86, 155-181.	2.9	454
100	A discontinuous enrichment method for variableâ€coefficient advectionâ€“diffusion at high PÃ©clet number. International Journal for Numerical Methods in Engineering, 2011, 87, 309-335.	2.9	25
101	A lowâ€cost, goalâ€oriented â€˜compact proper orthogonal decompositionâ€™ basis for model reduction of static systems. International Journal for Numerical Methods in Engineering, 2011, 86, 381-402.	2.9	80
102	Algorithms for interface treatment and load computation in embedded boundary methods for fluid and fluidâ€“structure interaction problems. International Journal for Numerical Methods in Fluids, 2011, 67, 1175-1206.	1.7	84
103	A higherâ€order discontinuous enrichment method for the solution of high pÃ©clet advectionâ€“diffusion problems on unstructured meshes. International Journal for Numerical Methods in Engineering, 2010, 81, 604-636.	2.9	22
104	Robust and provably secondâ€order explicitâ€“explicit and implicitâ€“explicit staggered timeâ€integrators for highly nonâ€linear compressible fluidâ€“structure interaction problems. International Journal for Numerical Methods in Engineering, 2010, 84, 73-107.	2.9	88
105	A discontinuous enrichment method for the efficient solution of plate vibration problems in the mediumâ€frequency regime. International Journal for Numerical Methods in Engineering, 2010, 84, 127-148.	2.9	6
106	Total energy conservation in ALE schemes for compressible flows. European Journal of Computational Mechanics, 2010, 19, 337-363.	0.9	5
107	Towards Real-Time Computational-Fluid-Dynamics-Based Aeroelastic Computations Using a Database of Reduced-Order Information. AIAA Journal, 2010, 48, 2029-2037.	2.6	119
108	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.	2.9	27

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109	A spaceâ€“time discontinuous Galerkin method for the solution of the wave equation in the time domain. International Journal for Numerical Methods in Engineering, 2009, 78, 275-295.	2.9	45
110	A domain decomposition method for discontinuous Galerkin discretizations of Helmholtz problems with plane waves and Lagrange multipliers. International Journal for Numerical Methods in Engineering, 2009, 78, 1513-1531.	2.9	36
111	A PadÃ©â€based factorizationâ€free algorithm for identifying the eigenvalues missed by a generalized symmetric eigensolver. International Journal for Numerical Methods in Engineering, 2009, 79, 239-252.	2.9	4
112	A FETIâ€preconditioned conjugate gradient method for largeâ€scale stochastic finite element problems. International Journal for Numerical Methods in Engineering, 2009, 80, 914-931.	2.9	41
113	A method for interpolating on manifolds structural dynamics reducedâ€order models. International Journal for Numerical Methods in Engineering, 2009, 80, 1241-1258.	2.9	166
114	A discontinuous enrichment method for the finite element solution of high PÃ©clet advectionâ€“diffusion problems. Finite Elements in Analysis and Design, 2009, 45, 238-250.	3.2	30
115	The FETI family of domain decomposition methods for inequality-constrained quadratic programming: Application to contact problems with conforming and nonconforming interfaces. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1673-1683.	6.7	38
116	Effects of Fuel Slosh on Flutter Prediction. , 2009, , .		13
117	On-Demand CFD-Based Aeroelastic Predictions Using a Database of Reduced-Order Bases and Models. , 2009, , .		33
118	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	31
119	Strain and stress computations in stochastic finite element methods. International Journal for Numerical Methods in Engineering, 2008, 74, 1219-1239.	2.9	34
120	A discontinuous enrichment method for threeâ€dimensional multiscale harmonic wave propagation problems in multiâ€fluid and fluidâ€“solid media. International Journal for Numerical Methods in Engineering, 2008, 76, 400-425.	2.9	24
121	A higher-order generalized ghost fluid method for the poor for the three-dimensional two-phase flow computation of underwater implosions. Journal of Computational Physics, 2008, 227, 7674-7700.	3.9	103
122	A discontinuous enrichment method for capturing evanescent waves in multiscale fluid and fluid/solid problems. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 1680-1698.	6.7	44
123	Sonic boom mitigation via shape optimization using an adjoint method and application to a supersonic fighter aircraft. European Journal of Computational Mechanics, 2008, 17, 217-243.	0.9	6
124	Interpolation Method for Adapting Reduced-Order Models and Application to Aeroelasticity. AIAA Journal, 2008, 46, 1803-1813.	2.6	514
125	Adaptation of Aeroelastic Reduced-Order Models and Application to an F-16 Configuration. AIAA Journal, 2007, 45, 1244-1257.	2.6	139
126	Shape Optimization Methodology for Reducing the Sonic Boom Initial Pressure Rise. AIAA Journal, 2007, 45, 1007-1018.	2.6	28

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127	Fast frequency sweep computations using a multi-point PadÃ©-based reconstruction method and an efficient iterative solver. International Journal for Numerical Methods in Engineering, 2007, 69, 2848-2875.	2.9	39
128	Incorporation of linear multipoint constraints in domain-decomposition-based iterative solvers â€“ Part II: Blending FETI-DP and mortar methods and assembling floating substructures. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 1347-1368.	6.7	15
129	Compressed Sensing and Time-Parallel Reduced-Order Modeling for Structural Health Monitoring Using a DDDAS. Lecture Notes in Computer Science, 2007, , 1171-1179.	1.0	25
130	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.	6.7	294
131	A dynamic variational multiscale method for large eddy simulations on unstructured meshes. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 1667-1691.	6.7	42
132	Reduced-order fluid/structure modeling of a complete aircraft configuration. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5730-5742.	6.7	265
133	Three-dimensional discontinuous Galerkin elements with plane waves and Lagrange multipliers for the solution of mid-frequency Helmholtz problems. International Journal for Numerical Methods in Engineering, 2006, 66, 796-815.	2.9	70
134	The discontinuous enrichment method for elastic wave propagation in the medium-frequency regime. International Journal for Numerical Methods in Engineering, 2006, 66, 2086-2114.	2.9	41
135	Time-parallel implicit integrators for the near-real-time prediction of linear structural dynamic responses. International Journal for Numerical Methods in Engineering, 2006, 67, 697-724.	2.9	68
136	A FETI-DP method for the parallel iterative solution of indefinite and complex-valued solid and shell vibration problems. International Journal for Numerical Methods in Engineering, 2005, 63, 398-427.	2.9	31
137	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.	2.2	24
138	FETI-DPH: A DUAL-PRIMAL DOMAIN DECOMPOSITION METHOD FOR ACOUSTIC SCATTERING. Journal of Computational Acoustics, 2005, 13, 499-524.	1.0	85
139	CFD on moving grids: from theory to realistic flutter, maneuvering, and multidisciplinary optimization. International Journal of Computational Fluid Dynamics, 2005, 19, 595-603.	1.3	20
140	A discontinuous Galerkin method with plane waves and Lagrange multipliers for the solution of short wave exterior Helmholtz problems on unstructured meshes. Wave Motion, 2004, 39, 307-317.	2.1	39
141	Higher-order extensions of a discontinuous Galerkin method for mid-frequency Helmholtz problems. International Journal for Numerical Methods in Engineering, 2004, 61, 1938-1956.	2.9	60
142	Design and analysis of robust ALE time-integrators for the solution of unsteady flow problems on moving grids. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4073-4095.	6.7	84
143	A variational multiscale method for the large eddy simulation of compressible turbulent flows on unstructured meshesâ€“â€“application to vortex shedding. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 1367-1383.	6.7	140
144	A numerically scalable dual-primal substructuring method for the solution of contact problemsâ€“â€“part I: the frictionless case. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 2403-2426.	6.7	44

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145	Sensitivity analysis and design optimization of three-dimensional non-linear aeroelastic systems by the adjoint method. International Journal for Numerical Methods in Engineering, 2003, 56, 911-933.	2.9	119
146	A fictitious domain decomposition method for the solution of partially axisymmetric acoustic scattering problems. Part 2: Neumann boundary conditions. International Journal for Numerical Methods in Engineering, 2003, 58, 63-81.	2.9	12
147	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.	2.9	170
148	Design and analysis of ALE schemes with provable second-order time-accuracy for inviscid and viscous flow simulations. Journal of Computational Physics, 2003, 191, 206-227.	3.9	119
149	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.	6.7	201
150	The discontinuous enrichment method for multiscale analysis. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 3195-3209.	6.7	74
151	Application of a three-field nonlinear fluidâ€“structure formulation to the prediction of the aeroelastic parameters of an F-16 fighter. Computers and Fluids, 2003, 32, 3-29.	2.6	203
152	Aeroelastic Dynamic Analysis of a Full F-16 Configuration for Various Flight Conditions. AIAA Journal, 2003, 41, 363-371.	2.6	165
153	On the solution of three-dimensional inverse obstacle acoustic scattering problems by a regularized Newton method. Inverse Problems, 2002, 18, 1229-1246.	1.9	52
154	Salinas: A Scalable Software for High-Performance Structural and Solid Mechanics Simulations. , 2002, , .		44
155	Three-dimensional finite element calculations in acoustic scattering using arbitrarily shaped convex artificial boundaries. International Journal for Numerical Methods in Engineering, 2002, 53, 1461-1476.	2.9	55
156	A fictitious domain decomposition method for the solution of partially axisymmetric acoustic scattering problems. Part I: Dirichlet boundary conditions. International Journal for Numerical Methods in Engineering, 2002, 54, 1309-1332.	2.9	19
157	A three-dimensional torsional spring analogy method for unstructured dynamic meshes. Computers and Structures, 2002, 80, 305-316.	4.5	258
158	Multidisciplinary Simulation of the Maneuvering of an Aircraft. Engineering With Computers, 2001, 17, 16-27.	5.8	23
159	A linearized method for the frequency analysis of three-dimensional fluid/structure interaction problems in all flow regimes. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3121-3146.	6.7	67
160	Partitioned procedures for the transient solution of coupled aeroelastic problems â€“ Part II: energy transfer analysis and three-dimensional applications. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3147-3170.	6.7	249
161	Partitioned analysis of coupled mechanical systems. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3247-3270.	6.7	566
162	The discontinuous enrichment method. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 6455-6479.	6.7	304

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163	A numerically scalable domain decomposition method for the solution of frictionless contact problems. International Journal for Numerical Methods in Engineering, 2001, 50, 2643-2666.	2.9	90
164	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.	2.9	25
165	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.	2.9	499
166	A Fast Method for Solving Acoustic Scattering Problems in Frequency Bands. Journal of Computational Physics, 2001, 168, 412-432.	3.9	29
167	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.	3.9	291
168	CFD-Based Aeroelastic Eigensolver for the Subsonic, Transonic, and Supersonic Regimes. Journal of Aircraft, 2001, 38, 628-635.	2.3	15
169	Application of the FETI method to ASCI problems?scalability results on 1000 processors and discussion of highly heterogeneous problems. International Journal for Numerical Methods in Engineering, 2000, 47, 513-535.	2.9	84
170	A scalable dual-primal domain decomposition method. Numerical Linear Algebra With Applications, 2000, 7, 687-714.	1.7	271
171	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.	6.7	164
172	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.	6.7	376
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