John B Bell

List of Publications by Year
in descending order

229 papers	13,268 citations	24978 57 h-index	25716 108 g-index
231 all docs	231 docs citations	231 times ranked	7177 citing authors

#	Article	IF	Citations
1	MFIX-Exa: A path toward exascale CFD-DEM simulations. International Journal of High Performance Computing Applications, 2022, 36, 40-58.	2.4	17
2	A coupled discontinuous Galerkin-Finite Volume framework for solving gas dynamics over embedded geometries. Journal of Computational Physics, 2022, 450, 110861.	1.9	7
3	Thermal fluctuations in the dissipation range of homogeneous isotropic turbulence. Journal of Fluid Mechanics, 2022, 939, .	1.4	15
4	An a priori evaluation of a principal component and artificial neural network based combustion model in diesel engine conditions. Proceedings of the Combustion Institute, 2021, 38, 2701-2709.	2.4	13
5	Modeling of a chain of three plasma accelerator stages with the WarpX electromagnetic PIC code on GPUs. Physics of Plasmas, 2021, 28, .	0.7	23
6	Discrete ion stochastic continuum overdamped solvent algorithm for modeling electrolytes. Physical Review Fluids, 2021, 6, .	1.0	12
7	AMReX: Block-structured adaptive mesh refinement for multiphysics applications. International Journal of High Performance Computing Applications, 2021, 35, 508-526.	2.4	43
8	Porting WarpX to GPU-accelerated platforms. Parallel Computing, 2021, 108, 102833.	1.3	25
9	A spectral deferred correction strategy for low Mach number reacting flows subject to electric fields. Combustion Theory and Modelling, 2020, 24, 194-220.	1.0	7
10	Iterative construction of Gaussian process surrogate models for Bayesian inference. Journal of Statistical Planning and Inference, 2020, 207, 55-72.	0.4	2
11	Exascale applications: skin in the game. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190056.	1.6	53
12	Scaling Turbulent Combustion Fields in Explosions. Applied Sciences (Switzerland), 2020, 10, 8577.	1.3	3
13	Toward the modeling of chains of plasma accelerator stages with WarpX. Journal of Physics: Conference Series, 2020, 1596, 012059.	0.3	4
14	The Castro AMR Simulation Code: Current and Future Developments. Journal of Physics: Conference Series, 2020, 1623, 012021.	0.3	3
15	Particleâ€“Continuum Coupling and its Scaling Regimes: Theory and Applications. Advanced Theory and Simulations, 2020, 3, 1900232.	1.3	12
16	Direct numerical simulation of a spatially developing n-dodecane jet flame under Spray A thermochemical conditions: Flame structure and stabilisation mechanism. Combustion and Flame, 2020, 217, 57-76.	2.8	29
17	Low Mach number fluctuating hydrodynamics model for ionic liquids. Physical Review Fluids, 2020, 5, .	1.0	4
18	CASTRO: A Massively Parallel Compressible Astrophysics Simulation Code. Journal of Open Source Software, 2020, 5, 2513.	2.0	15

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19	Diffusion effects near discontinuities in explosions. AIP Conference Proceedings, 2020, , .	0.3	1
20	Modeling pyrotechnic explosions. AIP Conference Proceedings, 2020, , .	0.3	0
21	Structure and propagation of two-dimensional, partially premixed, laminar flames in diesel engine conditions. Proceedings of the Combustion Institute, 2019, 37, 1961-1969.	2.4	13
22	Toward Resolved Simulations of Burning Fronts in Thermonuclear X-ray Bursts. Journal of Physics: Conference Series, 2019, 1225, 012005.	0.3	6
23	Towards the distributed burning regime in turbulent premixed flames. Journal of Fluid Mechanics, 2019, 871, 1-21.	1.4	67
24	On the suppression and distortion of non-equilibrium fluctuations by transpiration. Physics of Fluids, 2019, 31, .	1.6	5
25	A Bayesian approach to calibrating hydrogen flame kinetics using many experiments and parameters. Combustion and Flame, 2019, 205, 305-315.	2.8	14
26	Improved Coupling of Hydrodynamics and Nuclear Reactions via Spectral Deferred Corrections. Astrophysical Journal, 2019, 886, 105.	1.6	10
27	A fourth-order adaptive mesh refinement algorithm for the multicomponent, reacting compressible Navierâ€“Stokes equations. Combustion Theory and Modelling, 2019, 23, 592-625.	1.0	13
28	Impingement of a Supercritical Carbon Dioxide Jet on a Planar Surface. , 2019, , .		1
29	Fluctuating Hydrodynamics and Debye-HÃ¼ckel-Onsager Theory for Electrolytes. Current Opinion in Electrochemistry, 2019, 13, 1-10.	2.5	18
30	Fluctuating hydrodynamics of electrolytes at electroneutral scales. Physical Review Fluids, 2019, 4, .	1.0	15
31	AMReX: a framework for block-structured adaptive mesh refinement. Journal of Open Source Software, 2019, 4, 1370.	2.0	217
32	Iterative Importance Sampling Algorithms for Parameter Estimation. SIAM Journal of Scientific Computing, 2018, 40, B329-B352.	1.3	13
33	A hybrid adaptive low-Mach number/compressible method: Euler equations. Journal of Computational Physics, 2018, 372, 1027-1047.	1.9	2
34	Warp-X: A new exascale computing platform for beamâ€“plasma simulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 476-479.	0.7	68
35	A conservative, thermodynamically consistent numerical approach for low Mach number combustion. Part I: Single-level integration. Combustion Theory and Modelling, 2018, 22, 156-184.	1.0	24
36	Meeting the Challenges of Modeling Astrophysical Thermonuclear Explosions: Castro, Maestro, and the AMReX Astrophysics Suite. Journal of Physics: Conference Series, 2018, 1031, 012024.	0.3	17

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37	Toward Plasma Wakefield Simulations at Exascale. , 2018, , .		2
38	Fluctuating hydrodynamics of reactive liquid mixtures. Journal of Chemical Physics, 2018, 149, 084113.	1.2	11
39	Explosion-induced ignition and combustion of acetylene clouds. Shock Waves, 2018, 28, 1031-1037.	1.0	1
40	Stochastic simulation of reaction-diffusion systems: A fluctuating-hydrodynamics approach. Journal of Chemical Physics, 2017, 146, 124110.	1.2	35
41	Navier-Stokes Characteristic Boundary Conditions Using Ghost Cells. , 2017, , .		0
42	A Hybrid Adaptive Low-Mach-Number/Compressible Method for the Euler Equations. , 2017, , .		0
43	Achieving algorithmic resilience for temporal integration through spectral deferred corrections. Communications in Applied Mathematics and Computational Science, 2017, 12, 25-50.	0.7	4
44	Turbulent combustion in aluminum-air clouds for different scale explosion fields. AIP Conference Proceedings, 2017, , .	0.3	3
45	Fluctuation-enhanced electric conductivity in electrolyte solutions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10829-10833.	3.3	26
46	Navierâ€“Stokes Characteristic Boundary Conditions Using Ghost Cells. AIAA Journal, 2017, 55, 3399-3408.	1.5	20
47	Turbulent jets with off-source heating. Journal of Fluid Mechanics, 2017, 824, 766-784.	1.4	6
48	LOW MACH NUMBER MODELING OF CONVECTION IN HELIUM SHELLS ON SUB-CHANDRASEKHAR WHITE DWARFS. II. BULK PROPERTIES OF SIMPLE MODELS. Astrophysical Journal, 2016, 827, 84.	1.6	15
49	Topology-Aware Performance Optimization and Modeling of Adaptive Mesh Refinement Codes for Exascale. , 2016, , .		5
50	A high-order spectral deferred correction strategy for low Mach number flow with complex chemistry. Combustion Theory and Modelling, 2016, 20, 521-547.	1.0	23
51	Three-dimensional direct numerical simulation of turbulent lean premixed methane combustion with detailed kinetics. Combustion and Flame, 2016, 166, 266-283.	2.8	93
52	Low Mach number fluctuating hydrodynamics for electrolytes. Physical Review Fluids, 2016, 1, .	1.0	20
53	Low Mach number fluctuating hydrodynamics of binary liquid mixtures. Communications in Applied Mathematics and Computational Science, 2015, 10, 163-204.	0.7	22
54	ExaSAT: An exascale co-design tool for performance modeling. International Journal of High Performance Computing Applications, 2015, 29, 209-232.	2.4	28

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55	Topology and burning rates of turbulent, lean, H2/air flames. Combustion and Flame, 2015, 162, 4553-4565.	2.8	18
56	A combined computational and experimental characterization of lean premixed turbulent low swirl laboratory flames II. Hydrogen flames. Combustion and Flame, 2015, 162, 2148-2165.	2.8	48
57	Low Mach number fluctuating hydrodynamics of multispecies liquid mixtures. Physics of Fluids, 2015, 27, .	1.6	27
58	A Low Mach Number Model for Moist Atmospheric Flows. Journals of the Atmospheric Sciences, 2015, 72, 1605-1620.	0.6	8
59	Fluctuating hydrodynamics of multi-species reactive mixtures. Journal of Chemical Physics, 2015, 142, 224107.	1.2	32
60	COMPARISONS OF TWO- AND THREE-DIMENSIONAL CONVECTION IN TYPE I X-RAY BURSTS. Astrophysical Journal, 2015, 807, 60.	1.6	23
61	Leading edge statistics of turbulent, lean, H2â€“air flames. Proceedings of the Combustion Institute, 2015, 35, 1313-1320.	2.4	17
62	THE DEFLAGRATION STAGE OF CHANDRASEKHAR MASS MODELS FOR TYPE Ia SUPERNOVAE. I. EARLY EVOLUTION. Astrophysical Journal, 2014, 782, 11.	1.6	36
63	Cosmological fluid mechanics with adaptively refined large eddy simulations. Monthly Notices of the Royal Astronomical Society, 2014, 440, 3051-3077.	1.6	34
64	Low Mach Number Modeling of Stratified Flows. Springer Proceedings in Mathematics and Statistics, 2014, , 3-15.	0.1	3
65	Fluctuating hydrodynamics of multispecies nonreactive mixtures. Physical Review E, 2014, 89, 013017.	0.8	23
66	A Numerical Study of Methods for Moist Atmospheric Flows: Compressible Equations. Monthly Weather Review, 2014, 142, 4269-4283.	0.5	11
67	A survey of high level frameworks in block-structured adaptive mesh refinement packages. Journal of Parallel and Distributed Computing, 2014, 74, 3217-3227.	2.7	112
68	Modeling multiphase flow using fluctuating hydrodynamics. Physical Review E, 2014, 90, 033014.	0.8	33
69	High-order algorithms for compressible reacting flow with complex chemistry. Combustion Theory and Modelling, 2014, 18, 361-387.	1.0	31
70	MULTIDIMENSIONAL MODELING OF TYPE I X-RAY BURSTS. II. TWO-DIMENSIONAL CONVECTION IN A MIXED H/He ACCRETOR. Astrophysical Journal, 2014, 788, 115.	1.6	23
71	Low Mach number fluctuating hydrodynamics of diffusively mixing fluids. Communications in Applied Mathematics and Computational Science, 2014, 9, 47-105.	0.7	36
72	Efficient Variable-Coefficient Finite-Volume Stokes Solvers. Communications in Computational Physics, 2014, 16, 1263-1297.	0.7	41

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73	Spherical combustion clouds in explosions. Shock Waves, 2013, 23, 233-249.	1.0	25
74	CARBON DEFLAGRATION IN TYPE Ia SUPERNOVA. I. CENTRALLY IGNITED MODELS. Astrophysical Journal, 2013, 771, 58.	1.6	30
75	Multiphysics simulations. International Journal of High Performance Computing Applications, 2013, 27, 4-83.	2.4	244
76	LOW MACH NUMBER MODELING OF CORE CONVECTION IN MASSIVE STARS. Astrophysical Journal, 2013, 773, 137.	1.6	35
77	On the Use of Higher-Order Projection Methods for Incompressible Turbulent Flow. SIAM Journal of Scientific Computing, 2013, 35, B25-B42.	1.3	18
78	A communications simulation methodology for AMR codes using task dependency analysis. , 2013, , .		2
79	CASTRO: A NEW COMPRESSIBLE ASTROPHYSICAL SOLVER. III. MULTIGROUP RADIATION HYDRODYNAMICS. Astrophysical Journal, Supplement Series, 2013, 204, 7.	3.0	48
80	Nyx: A MASSIVELY PARALLEL AMR CODE FOR COMPUTATIONAL COSMOLOGY. Astrophysical Journal, 2013, 765, 39.	1.6	192
81	LOW MACH NUMBER MODELING OF CONVECTION IN HELIUM SHELLS ON SUB-CHANDRASEKHAR WHITE DWARFS. I. METHODOLOGY. Astrophysical Journal, 2013, 764, 97.	1.6	18
82	Software Design Space Exploration for Exascale Combustion Co-design. Lecture Notes in Computer Science, 2013, , 196-212.	1.0	16
83	Riemann solver for the Nigmatulin model of two-phase flow. , 2012, , .		2
84	Fluctuating hydrodynamics and direct simulation Monte Carlo. , 2012, , .		2
85	Staggered Schemes for Fluctuating Hydrodynamics. Multiscale Modeling and Simulation, 2012, 10, 1369-1408.	0.6	96
86	A deferred correction coupling strategy for low Mach number flow with complex chemistry. Combustion Theory and Modelling, 2012, 16, 1053-1088.	1.0	44
87	An empirical model for the ignition of explosively dispersed aluminum particle clouds. Shock Waves, 2012, 22, 591-603.	1.0	8
88	HIGH-RESOLUTION SIMULATIONS OF CONVECTION PRECEDING IGNITION IN TYPE Ia SUPERNOVAE USING ADAPTIVE MESH REFINEMENT. Astrophysical Journal, 2012, 745, 73.	1.6	67
89	An adaptive mesh refinement algorithm for compressible two-phase flow in porous media. Computational Geosciences, 2012, 16, 577-592.	1.2	35
90	A combined computational and experimental characterization of lean premixed turbulent low swirl laboratory flames. Combustion and Flame, 2012, 159, 275-290.	2.8	91

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91	A Three-Dimensional, Unsplit Godunov Method for Scalar Conservation Laws. SIAM Journal of Scientific Computing, 2011, 33, 2039-2062.	1.3	6
92	Adaptive Methods for Simulation of Turbulent Combustion. Fluid Mechanics and Its Applications, 2011, , 301-329.	0.1	8
93	BURNING THERMALS IN TYPE Ia SUPERNOVAE. Astrophysical Journal, 2011, 738, 94.	1.6	14
94	Turbulenceâ€“flame interactions in lean premixed hydrogen: transition to the distributed burning regime. Journal of Fluid Mechanics, 2011, 680, 287-320.	1.4	190
95	THE CONVECTIVE PHASE PRECEDING TYPE Ia SUPERNOVAE. Astrophysical Journal, 2011, 740, 8.	1.6	43
96	MULTIDIMENSIONAL MODELING OF TYPE I X-RAY BURSTS. I. TWO-DIMENSIONAL CONVECTION PRIOR TO THE OUTBURST OF A PURE⁴He ACCRETOR. Astrophysical Journal, 2011, 728, 118.	1.6	35
97	TURBULENT OXYGEN FLAMES IN TYPE Ia SUPERNOVAE. Astrophysical Journal, 2011, 730, 144.	1.6	7
98	An unsplit, higher-order Godunov method using quadratic reconstruction for advection in two dimensions. Communications in Applied Mathematics and Computational Science, 2011, 6, 27-61.	0.7	4
99	Interactive Exploration and Analysis of Large-Scale Simulations Using Topology-Based Data Segmentation. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 1307-1324.	2.9	114
100	The potential role of spatial dimension in the neutrino-driving mechanism of core-collapse supernova explosions. Computer Physics Communications, 2011, 182, 1764-1766.	3.0	2
101	Properties of lean turbulent methane-air flames with significant hydrogen addition. Proceedings of the Combustion Institute, 2011, 33, 1601-1608.	2.4	44
102	Numerical simulation of nitrogen oxide formation in lean premixed turbulent H2/O2/N2 flames. Proceedings of the Combustion Institute, 2011, 33, 1591-1599.	2.4	33
103	Diffusive Transport by Thermal Velocity Fluctuations. Physical Review Letters, 2011, 106, 204501.	2.9	48
104	Enhancement of diffusive transport by non-equilibrium thermal fluctuations. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P06014.	0.9	35
105	CASTRO: A NEW COMPRESSIBLE ASTROPHYSICAL SOLVER. II. GRAY RADIATION HYDRODYNAMICS. Astrophysical Journal, Supplement Series, 2011, 196, 20.	3.0	71
106	Hydrodynamic fluctuations in a particle-continuum hybrid for complex fluids. , 2011, , .		0
107	Feature Tracking Using Reeb Graphs. Mathematics and Visualization, 2011, , 241-253.	0.4	27
108	THE NUCLEOSYNTHETIC IMPRINT OF 15â€“40M_{â˜‰}PRIMORDIAL SUPERNOVAE ON METAL-POOR STARS. Astrophysical Journal, 2010, 709, 11-26.	1.6	113

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109	DISTRIBUTED FLAMES IN TYPE Ia SUPERNOVAE. Astrophysical Journal, 2010, 710, 1654-1663.	1.6	45
110	On the accuracy of finite-volume schemes for fluctuating hydrodynamics. Communications in Applied Mathematics and Computational Science, 2010, 5, 149-197.	0.7	102
111	Heterogeneous Continuum Model of Aluminum Particle Combustion in Explosions. Combustion, Explosion and Shock Waves, 2010, 46, 433-448.	0.3	38
112	High-resolution simulation and characterization of density-driven flow in CO2 storage in saline aquifers. Advances in Water Resources, 2010, 33, 443-455.	1.7	279
113	MAESTRO: AN ADAPTIVE LOW MACH NUMBER HYDRODYNAMICS ALGORITHM FOR STELLAR FLOWS. Astrophysical Journal, Supplement Series, 2010, 188, 358-383.	3.0	68
114	The regime diagram for premixed flame kernel-vortex interactionsâ€"Revisited. Physics of Fluids, 2010, 22, 043602.	1.6	14
115	DIMENSION AS A KEY TO THE NEUTRINO MECHANISM OF CORE-COLLAPSE SUPERNOVA EXPLOSIONS. Astrophysical Journal, 2010, 720, 694-703.	1.6	163
116	Simulation of Combustion of C/B Clouds in Explosions. , 2010, , .		1
117	CASTRO: A NEW COMPRESSIBLE ASTROPHYSICAL SOLVER. I. HYDRODYNAMICS AND SELF-GRAVITY. Astrophysical Journal, 2010, 715, 1221-1238.	1.6	211
118	Computational fluctuating fluid dynamics. ESAIM: Mathematical Modelling and Numerical Analysis, 2010, 44, 1085-1105.	0.8	33
119	A Hybrid Particle-Continuum Method for Hydrodynamics of Complex Fluids. Multiscale Modeling and Simulation, 2010, 8, 871-911.	0.6	63
120	Analyzing and Tracking Burning Structures in Lean Premixed Hydrogen Flames. IEEE Transactions on Visualization and Computer Graphics, 2010, 16, 248-260.	2.9	89
121	LOW MACH NUMBER MODELING OF TYPE IA SUPERNOVAE. IV. WHITE DWARF CONVECTION. Astrophysical Journal, 2009, 704, 196-210.	1.6	63
122	The mathematical structure of multiphase thermal models of flow in porous media. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 523-549.	1.0	16
123	Turbulence effects on cellular burning structures in lean premixed hydrogen flames. Combustion and Flame, 2009, 156, 1035-1045.	2.8	110
124	The Soret effect in naturally propagating, premixed, lean, hydrogenâ€"air flames. Proceedings of the Combustion Institute, 2009, 32, 1173-1180.	2.4	60
125	A parallel second-order adaptive mesh algorithm for incompressible flow in porous media. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 4633-4654.	1.6	21
126	A New Low Mach Number Approach in Astrophysics. Computing in Science and Engineering, 2009, 11, 24-33.	1.2	4

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127	AMR Code Simulations of Turbulent Combustion in Confined and Unconfined SDF Explosions. , 2009, , .		2
128	A Topological Framework for the Interactive Exploration of Large Scale Turbulent Combustion. , 2009, , .		12
129	Cellular burning in lean premixed turbulent hydrogen-air flames: Coupling experimental and computational analysis at the laboratory scale. Journal of Physics: Conference Series, 2009, 180, 012031.	0.3	11
130	Type Ia supernovae: Advances in large scale simulation. Journal of Physics: Conference Series, 2009, 180, 012023.	0.3	1
131	Occam's razor and petascale visual data analysis. Journal of Physics: Conference Series, 2009, 180, 012084.	0.3	2
132	Algorithm Refinement for Fluctuating Hydrodynamics. Multiscale Modeling and Simulation, 2008, 6, 1256-1280.	0.6	27
133	Interaction of turblence and chemistry in a low-swirl burner. Journal of Physics: Conference Series, 2008, 125, 012027.	0.3	9
134	Analysis of implicit LES methods. Communications in Applied Mathematics and Computational Science, 2008, 3, 103-126.	0.7	88
135	Numerical simulation of low Mach number reacting flows. Journal of Physics: Conference Series, 2008, 125, 012012.	0.3	3
136	Astrophysical applications of the MAESTRO code. Journal of Physics: Conference Series, 2008, 125, 012013.	0.3	3
137	Low Mach Number Modeling of Type Ia Supernovae. III. Reactions. Astrophysical Journal, 2008, 684, 449-470.	1.6	42
138	Turbulenceâ€Flame Interactions in Type Ia Supernovae. Astrophysical Journal, 2008, 689, 1173-1185.	1.6	68
139	Type Ia supernovae. Journal of Physics: Conference Series, 2007, 78, 012081.	0.3	7
140	MAESTRO: A Low Mach Number Stellar Hydrodynamics Code. Journal of Physics: Conference Series, 2007, 78, 012085.	0.3	7
141	Numerical simulation of low Mach number reacting flows. Journal of Physics: Conference Series, 2007, 78, 012004.	0.3	3
142	Performance and scaling of locally-structured grid methods for partial differential equations. Journal of Physics: Conference Series, 2007, 78, 012013.	0.3	24
143	Simulation of Enhance-Explosive Devices in Chambers and Tunnels. , 2007, , .		4
144	Numerical methods for the stochastic Landau-Lifshitz Navier-Stokes equations. Physical Review E, 2007, 76, 016708.	0.8	68

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145	Algorithm refinement for the stochastic Burgersâ€™ equation. Journal of Computational Physics, 2007, 223, 451-468.	1.9	15
146	Numerical simulation of a laboratory-scale turbulent slot flame. Proceedings of the Combustion Institute, 2007, 31, 1299-1307.	2.4	116
147	Numerical simulation of Lewis number effects on lean premixed turbulent flames. Proceedings of the Combustion Institute, 2007, 31, 1309-1317.	2.4	107
148	Numerical Simulation of the Combustion of Aluminum Shock-Dispersed-Fuel Charges. , 2006, , .		0
149	A taxonomy of integral reaction path analysis. Combustion Theory and Modelling, 2006, 10, 559-579.	1.0	15
150	Active control for statistically stationary turbulent premixed flame simulations. Communications in Applied Mathematics and Computational Science, 2006, 1, 29-51.	0.7	39
151	Low Mach Number Modeling of Type Ia Supernovae. II. Energy Evolution. Astrophysical Journal, 2006, 649, 927-938.	1.6	47
152	Simulation of premixed turbulent flames. Journal of Physics: Conference Series, 2006, 46, 43-47.	0.3	1
153	New approaches for modeling Type Ia supernovae. Journal of Physics: Conference Series, 2006, 46, 385-392.	0.3	3
154	Simulation of lean premixed turbulent combustion. Journal of Physics: Conference Series, 2006, 46, 1-15.	0.3	11
155	Low Mach Number Modeling of Type Ia Supernovae. I. Hydrodynamics. Astrophysical Journal, 2006, 637, 922-936.	1.6	116
156	The physics of flames in Type Ia supernovae. Journal of Physics: Conference Series, 2005, 16, 405-409.	0.3	15
157	Threeâ€dimensional Numerical Simulations of Rayleighâ€Taylor Unstable Flames in Type Ia Supernovae. Astrophysical Journal, 2005, 632, 1021-1034.	1.6	108
158	Tools for simulation of laboratory-scale premixed turbulent flames. Journal of Physics: Conference Series, 2005, 16, 80-90.	0.3	0
159	Effects of mixing on ammonia oxidation in combustion environments at intermediate temperatures. Proceedings of the Combustion Institute, 2005, 30, 1193-1200.	2.4	28
160	Stochastic algorithms for the analysis of numerical flame simulations. Journal of Computational Physics, 2005, 202, 262-280.	1.9	2
161	AMR for low Mach number reacting flow. , 2005, , 203-221.		6
162	From The Cover: Numerical simulation of a laboratory-scale turbulent V-flame. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10006-10011.	3.3	94

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163	Adaptive low Mach number simulations of nuclear flame microphysics. Journal of Computational Physics, 2004, 195, 677-694.	1.9	63
164	Direct Numerical Simulations of Type Ia Supernovae Flames. II. The Rayleighâ€Taylor Instability. Astrophysical Journal, 2004, 608, 883-906.	1.6	70
165	Direct Numerical Simulations of Type Ia Supernovae Flames. I. The Landauâ€Ðarrieus Instability. Astrophysical Journal, 2004, 606, 1029-1038.	1.6	36
166	A parallel adaptive projection method for low Mach number flows. International Journal for Numerical Methods in Fluids, 2002, 40, 209-216.	0.9	18
167	Numerical simulation of premixed turbulent methane combustion. Proceedings of the Combustion Institute, 2002, 29, 1987-1993.	2.4	89
168	Detailed modeling and laser-induced fluorescence imaging of nitric oxide in a NH3-seeded non-premixed methane/air flame. Proceedings of the Combustion Institute, 2002, 29, 2195-2202.	2.4	25
169	Ammonia conversion and NOx formation in laminar coflowing nonpremixed methane-air flames. Combustion and Flame, 2002, 131, 285-298.	2.8	95
170	Small-Scale Processes and Entrainment in a Stratocumulus Marine Boundary Layer. Journals of the Atmospheric Sciences, 2000, 57, 567-581.	0.6	17
171	Scaling and efficiency of prism in adaptive simulations of turbulent premixed flames. Proceedings of the Combustion Institute, 2000, 28, 107-113.	2.4	33
172	The dependence of chemistry on the inlet equivalence ratio in vortex-flame interactions. Proceedings of the Combustion Institute, 2000, 28, 1933-1939.	2.4	22
173	Parallelization of structured, hierarchical adaptive mesh refinement algorithms. Computing and Visualization in Science, 2000, 3, 147-157.	1.2	97
174	Approximate Projection Methods: Part I. Inviscid Analysis. SIAM Journal of Scientific Computing, 2000, 22, 1139-1159.	1.3	88
175	Numerical simulation of laminar reacting flows with complex chemistry. Combustion Theory and Modelling, 2000, 4, 535-556.	1.0	254
176	An Adaptive Level Set Approach for Incompressible Two-Phase Flows. Journal of Computational Physics, 1999, 148, 81-124.	1.9	560
177	Adaptive Mesh and Algorithm Refinement Using Direct Simulation Monte Carlo. Journal of Computational Physics, 1999, 154, 134-155.	1.9	237
178	A Conservative Adaptive Projection Method for the Variable Density Incompressible Navierâ€“Stokes Equations. Journal of Computational Physics, 1998, 142, 1-46.	1.9	430
179	An Adaptive Projection Method for Unsteady, Low-Mach Number Combustion. Combustion Science and Technology, 1998, 140, 123-168.	1.2	96
180	The thermal explosion revisited. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 13384-13386.	3.3	15

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181	An accurate numerical algorithm for solving compressible three-phase flows in porous media. Applicable Analysis, 1997, 66, 57-88.	0.6	3
182	A Cartesian Grid Projection Method for the Incompressible Euler Equations in Complex Geometries. SIAM Journal of Scientific Computing, 1997, 18, 1289-1309.	1.3	97
183	An Adaptive Mesh Projection Method for Viscous Incompressible Flow. SIAM Journal of Scientific Computing, 1997, 18, 996-1013.	1.3	52
184	A High-Order Projection Method for Tracking Fluid Interfaces in Variable Density Incompressible Flows. Journal of Computational Physics, 1997, 130, 269-282.	1.9	418
185	A Numerical Method for the Incompressible Navier-Stokes Equations Based on an Approximate Projection. SIAM Journal of Scientific Computing, 1996, 17, 358-369.	1.3	156
186	X-Ray–heated Coronae and Winds from Accretion Disks: Time-dependent Two-dimensional Hydrodynamics with Adaptive Mesh Refinement. Astrophysical Journal, 1996, 461, 767.	1.6	139
187	An Adaptive Cartesian Grid Method for Unsteady Compressible Flow in Irregular Regions. Journal of Computational Physics, 1995, 120, 278-304.	1.9	256
188	An adaptive multifluid interface-capturing method for compressible flow in complex geometries. , 1995, , .		9
189	An adaptive semi-implicit scheme for simulations of unsteady viscous compressible flows. , 1995, , .		7
190	A cell-centered Cartesian grid projection method for the incompressible Euler equations in complex geometries. , 1995, , .		7
191	Projection method for viscous incompressible flow on quadrilateral grids. AIAA Journal, 1994, 32, 1961-1969.	1.5	17
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