

Matthias Ihme

List of Publications by Year in descending order

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203
papers

5,456
citations

94269

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204
docs citations

204
times ranked

2570
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling of radiation and nitric oxide formation in turbulent nonpremixed flames using a flamelet/progress variable formulation. <i>Physics of Fluids</i> , 2008, 20, .	1.6	232
2	Prediction of extinction and reignition in nonpremixed turbulent flames using a flamelet/progress variable model. <i>Combustion and Flame</i> , 2008, 155, 90-107.	2.8	217
3	Prediction of local extinction and re-ignition effects in non-premixed turbulent combustion using a flamelet/progress variable approach. <i>Proceedings of the Combustion Institute</i> , 2005, 30, 793-800.	2.4	213
4	Prediction of autoignition in a lifted methane/air flame using an unsteady flamelet/progress variable model. <i>Combustion and Flame</i> , 2010, 157, 1850-1862.	2.8	176
5	LES flamelet modeling of a three-stream MILD combustor: Analysis of flame sensitivity to scalar inflow conditions. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 1309-1317.	2.4	155
6	Regularization of reaction progress variable for application to flamelet-based combustion models. <i>Journal of Computational Physics</i> , 2012, 231, 7715-7721.	1.9	145
7	Fuel effects on lean blow-out in a realistic gas turbine combustor. <i>Combustion and Flame</i> , 2017, 181, 82-99.	2.8	143
8	Prediction of extinction and reignition in nonpremixed turbulent flames using a flamelet/progress variable model. <i>Combustion and Flame</i> , 2008, 155, 70-89.	2.8	140
9	An entropy-stable hybrid scheme for simulations of transcritical real-fluid flows. <i>Journal of Computational Physics</i> , 2017, 340, 330-357.	1.9	128
10	Optimal artificial neural networks and tabulation methods for chemistry representation in LES of a bluff-body swirl-stabilized flame. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 1527-1535.	2.4	115
11	Combustion and Engine-Core Noise. <i>Annual Review of Fluid Mechanics</i> , 2017, 49, 277-310.	10.8	92
12	Large-Eddy Simulation of a Jet-in-Hot-Coflow Burner Operating in the Oxygen-Diluted Combustion Regime. <i>Flow, Turbulence and Combustion</i> , 2012, 89, 449-464.	1.4	87
13	Ignition regimes in rapid compression machines. <i>Combustion and Flame</i> , 2015, 162, 3071-3080.	2.8	80
14	Combustion machine learning: Principles, progress and prospects. <i>Progress in Energy and Combustion Science</i> , 2022, 91, 101010.	15.8	77
15	Widom Lines in Binary Mixtures of Supercritical Fluids. <i>Scientific Reports</i> , 2017, 7, 3027.	1.6	71
16	Reduced-Order Modeling of Turbulent Reacting Flows with Application to Ramjets and Scramjets. <i>Journal of Propulsion and Power</i> , 2011, 27, 371-382.	1.3	70
17	Large eddy simulation of a partially-premixed gas turbine model combustor. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1225-1234.	2.4	64
18	Discontinuous Galerkin method for multicomponent chemically reacting flows and combustion. <i>Journal of Computational Physics</i> , 2014, 270, 105-137.	1.9	63

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19	Functionalization of 2D materials for enhancing OER/ORR catalytic activity in Li-air oxygen batteries. <i>Communications Chemistry</i> , 2019, 2, .	2.0	61
20	A Pareto-efficient combustion framework with submodel assignment for predicting complex flame configurations. <i>Combustion and Flame</i> , 2015, 162, 4208-4230.	2.8	60
21	Spectral kinetic energy transfer in turbulent premixed reacting flows. <i>Physical Review E</i> , 2016, 93, 053115.	0.8	60
22	Radiation of noise in turbulent non-premixed flames. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 1545-1553.	2.4	59
23	Subgrid-scale backscatter in reacting and inert supersonic hydrogen-air turbulent mixing layers. <i>Journal of Fluid Mechanics</i> , 2014, 743, 554-584.	1.4	59
24	Weak and strong ignition of hydrogen/oxygen mixtures in shock-tube systems. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 2181-2189.	2.4	58
25	Compositional inhomogeneities as a source of indirect combustion noise. <i>Journal of Fluid Mechanics</i> , 2016, 799, .	1.4	58
26	Analysis of segregation and bifurcation in turbulent spray flames: A 3D counterflow configuration. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1675-1683.	2.4	57
27	Shock capturing for discontinuous Galerkin methods with application to predicting heat transfer in hypersonic flows. <i>Journal of Computational Physics</i> , 2019, 376, 54-75.	1.9	57
28	Large-eddy simulation of turbulent reacting flows. <i>Progress in Aerospace Sciences</i> , 2008, 44, 466-478.	6.3	55
29	Similarity law for Widom lines and coexistence lines. <i>Physical Review E</i> , 2017, 95, 052120.	0.8	55
30	The cross-scale physical-space transfer of kinetic energy in turbulent premixed flames. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 1967-1975.	2.4	53
31	Tabulated chemistry approach for diluted combustion regimes with internal recirculation and heat losses. <i>Combustion and Flame</i> , 2014, 161, 2120-2136.	2.8	52
32	Between supercritical liquids and gases – Reconciling dynamic and thermodynamic state transitions. <i>Journal of Supercritical Fluids</i> , 2020, 165, 104895.	1.6	50
33	Acoustic characterization of a partially-premixed gas turbine model combustor: Syngas and hydrocarbon fuel comparisons. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 3145-3153.	2.4	49
34	The role of preferential evaporation on the ignition of multicomponent fuels in a homogeneous spray/air mixture. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2483-2491.	2.4	48
35	Efficient time-stepping techniques for simulating turbulent reactive flows with stiff chemistry. <i>Computer Physics Communications</i> , 2019, 243, 81-96.	3.0	44
36	Phase transitions of ordered ice in graphene nanocapillaries and carbon nanotubes. <i>Scientific Reports</i> , 2018, 8, 3851.	1.6	43

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37	An Unsteady/Flamelet Progress Variable Method for LES of Nonpremixed Turbulent Combustion. , 2005, , ,		38
38	Generation of Optimal Artificial Neural Networks Using a Pattern Search Algorithm: Application to Approximation of Chemical Systems. Neural Computation, 2008, 20, 573-601.	1.3	38
39	Development and Analysis of Wall Models for Internal Combustion Engine Simulations Using High-speed Micro-PIV Measurements. Flow, Turbulence and Combustion, 2017, 98, 283-309.	1.4	38
40	An investigation of internal flame structure in porous media combustion via X-ray Computed Tomography. Proceedings of the Combustion Institute, 2017, 36, 4399-4408.	2.4	38
41	On the numerical behavior of diffuse-interface methods for transcritical real-fluids simulations. International Journal of Multiphase Flow, 2019, 113, 231-249.	1.6	38
42	Classification and lift-off height prediction of non-premixed MILD and autoignitive flames. Proceedings of the Combustion Institute, 2017, 36, 4297-4304.	2.4	37
43	Atomistic and continuum scale modeling of functionalized graphyne membranes for water desalination. Nanoscale, 2018, 10, 3969-3980.	2.8	37
44	A multi-scale asymptotic scaling and regime analysis of flamelet equations including tangential diffusion effects for laminar and turbulent flames. Combustion and Flame, 2015, 162, 1507-1529.	2.8	36
45	Nonadiabatic Flamelet Formulation for Predicting Wall Heat Transfer in Rocket Engines. AIAA Journal, 2018, 56, 2336-2349.	1.5	36
46	Imaging the short-lived hydroxyl-hydronium pair in ionized liquid water. Science, 2021, 374, 92-95.	6.0	36
47	Assessment of model assumptions and budget terms of the unsteady flamelet equations for a turbulent reacting jet-in-cross-flow. Combustion and Flame, 2014, 161, 2601-2613.	2.8	35
48	Compliance of combustion models for turbulent reacting flow simulations. Fuel, 2016, 186, 853-863.	3.4	35
49	Large-eddy simulations of transcritical injection and auto-ignition using diffuse-interface method and finite-rate chemistry. Proceedings of the Combustion Institute, 2019, 37, 3303-3310.	2.4	34
50	On the role of turbulence and compositional fluctuations in rapid compression machines: Autoignition of syngas mixtures. Combustion and Flame, 2012, 159, 1592-1604.	2.8	33
51	Entropy-bounded discontinuous Galerkin scheme for Euler equations. Journal of Computational Physics, 2015, 295, 715-739.	1.9	33
52	Seven questions about supercritical fluids - towards a new fluid state diagram. , 2017, , ,		33
53	Non-equilibrium wall-modeling for internal combustion engine simulations with wall heat transfer. International Journal of Engine Research, 2017, 18, 15-25.	1.4	33
54	Regimes describing shock boundary layer interaction and ignition in shock tubes. Proceedings of the Combustion Institute, 2017, 36, 2927-2935.	2.4	33

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55	Lyapunov exponent as a metric for assessing the dynamic content and predictability of large-eddy simulations. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	33
56	Structure of wall-bounded flows at transcritical conditions. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	33
57	Large-eddy simulation of a piloted premixed jet burner. <i>Combustion and Flame</i> , 2013, 160, 2896-2910.	2.8	32
58	Regularized deconvolution method for turbulent combustion modeling. <i>Combustion and Flame</i> , 2017, 176, 125-142.	2.8	32
59	An entropy-residual shock detector for solving conservation laws using high-order discontinuous Galerkin methods. <i>Journal of Computational Physics</i> , 2016, 322, 448-472.	1.9	31
60	Coupling of flame geometry and combustion instabilities based on kilohertz formaldehyde PLIF measurements. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3255-3262.	2.4	30
61	On the Generation of Direct Combustion Noise in Turbulent Non-Premixed Flames. <i>International Journal of Aeroacoustics</i> , 2012, 11, 25-78.	0.8	29
62	A two-way coupled Euler-Lagrange method for simulating multiphase flows with discontinuous Galerkin schemes on arbitrary curved elements. <i>Journal of Computational Physics</i> , 2020, 405, 109096.	1.9	29
63	Analysis of droplet evaporation in isotropic turbulence through droplet-resolved DNS. <i>International Journal of Heat and Mass Transfer</i> , 2021, 172, 121157.	2.5	29
64	On the generalisation of the mixture fraction to a monotonic mixing-describing variable for the flamelet formulation of spray flames. <i>Combustion Theory and Modelling</i> , 2015, 19, 773-806.	1.0	28
65	A general probabilistic approach for the quantitative assessment of LES combustion models. <i>Combustion and Flame</i> , 2017, 183, 88-101.	2.8	28
66	Computational analysis of re-ignition and re-initiation mechanisms of quenched detonation waves behind a backward facing step. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1963-1972.	2.4	27
67	Thermodynamic structure of supercritical LOX-GH ₂ diffusion flames. <i>Combustion and Flame</i> , 2018, 196, 364-376.	2.8	27
68	Instability of elliptic liquid jets: Temporal linear stability theory and experimental analysis. <i>Physics of Fluids</i> , 2014, 26, .	1.6	26
69	Modulation of heat transfer for extended flame stabilization in porous media burners via topology gradation. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 5697-5704.	2.4	26
70	Data assimilation using high-speed measurements and LES to examine local extinction events in turbulent flames. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 2259-2266.	2.4	26
71	Analysis of transient blow-out dynamics in a swirl-stabilized combustor using large-eddy simulations. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 5073-5082.	2.4	26
72	Modeling Heat-Shield Erosion due to Dust Particle Impacts for Martian Entries. <i>Journal of Spacecraft and Rockets</i> , 2020, 57, 857-875.	1.3	26

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73	Experimental investigation of lean premixed pre-vaporized liquid-fuel combustion in porous media burners at elevated pressures up to 20Åbar. <i>Combustion and Flame</i> , 2020, 212, 123-134.	2.8	25
74	Data-assisted combustion simulations with dynamic submodel assignment using random forests. <i>Combustion and Flame</i> , 2021, 227, 172-185.	2.8	24
75	Analysis of Different Sound Source Formulations to Simulate Combustion Generated Noise Using a Hybrid LES/APE-RF Method. <i>International Journal of Aeroacoustics</i> , 2009, 8, 95-123.	0.8	23
76	Group contribution method for multicomponent evaporation with application to transportation fuels. <i>International Journal of Heat and Mass Transfer</i> , 2016, 102, 833-845.	2.5	23
77	Assessment of differential diffusion effects in flamelet modeling of oxy-fuel flames. <i>Combustion and Flame</i> , 2018, 197, 134-144.	2.8	23
78	General Drag Coefficient for Flow over Spherical Particles. <i>AIAA Journal</i> , 2022, 60, 587-597.	1.5	23
79	Large Eddy Simulation of Shear Coaxial Rocket Injector: Real Fluid Effects. , 2013, , .		22
80	Effect of gravity on capillary instability of liquid jets. <i>Physical Review E</i> , 2013, 87, 053017.	0.8	20
81	Modeling of Non-Equilibrium Homogeneous Turbulence in Rapidly Compressed Flows. <i>Flow, Turbulence and Combustion</i> , 2014, 93, 93-124.	1.4	19
82	Large eddy simulations of diesel-fuel injection and auto-ignition at transcritical conditions. <i>International Journal of Engine Research</i> , 2019, 20, 58-68.	1.4	19
83	An SMLD Joint PDF Model for Turbulent Non-Premixed Combustion Using the Flamelet Progress-Variable Approach. <i>Flow, Turbulence and Combustion</i> , 2015, 95, 97-119.	1.4	18
84	Numerical study of the ignition behavior of a post-discharge kernel in a turbulent stratified crossflow. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 5065-5072.	2.4	18
85	MVP-Workshop Contribution: Modeling of Volvo bluff body flame experiment. , 2017, , .		17
86	Pore-resolved simulations of porous media combustion with conjugate heat transfer. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 2127-2134.	2.4	17
87	Numerical framework for transcritical real-fluid reacting flow simulations using the flamelet progress variable approach. , 2017, , .		16
88	High-order discontinuous Galerkin method for applications to multicomponent and chemically reacting flows. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017, 33, 486-499.	1.5	16
89	Pareto-efficient combustion modeling for improved CO-emission prediction in LES of a piloted turbulent dimethyl ether jet flame. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 2267-2276.	2.4	16
90	StanShock: a gas-dynamic model for shock tube simulations with non-ideal effects and chemical kinetics. <i>Shock Waves</i> , 2020, 30, 425-438.	1.0	16

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91	Additive Manufacturing of Tailored Macroporous Ceramic Structures for High-Temperature Applications. <i>Advanced Engineering Materials</i> , 2020, 22, 2000158.	1.6	16
92	Structural analysis of biomass pyrolysis and oxidation using in-situ X-ray computed tomography. <i>Combustion and Flame</i> , 2022, 235, 111737.	2.8	16
93	Simultaneous in-situ measurements of gas temperature and pyrolysis of biomass smoldering via X-ray computed tomography. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 3899-3907.	2.4	15
94	Coupling of turbulence on the ignition of multicomponent sprays. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 3295-3302.	2.4	14
95	Carbon oxidation in turbulent premixed jet flames: A comparative experimental and numerical study of ethylene, n-heptane, and toluene. <i>Combustion and Flame</i> , 2020, 221, 371-383.	2.8	14
96	Effects of evaporation on chemical reactions in counterflow spray flames. <i>Physics of Fluids</i> , 2021, 33, .	1.6	14
97	Stochastic mixing model with power law decay of variance. <i>Physical Review E</i> , 2005, 71, 016310.	0.8	13
98	Characterization of Flow Field Structure and Species Composition in a Shear Coaxial Rocket GH2/GO2 Injector: Modeling of Wall Heat Losses. , 2011, , .		13
99	On underresolved simulations of compressible turbulence using an entropy-bounded DG method: Solution stabilization, scheme optimization, and benchmark against a finite-volume solver. <i>Computers and Fluids</i> , 2018, 161, 89-106.	1.3	13
100	Molecular diffusion and phase stability in high-pressure combustion. <i>Combustion and Flame</i> , 2019, 210, 302-314.	2.8	13
101	Assessment of spray combustion models in large-eddy simulations of a polydispersed acetone spray flame. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 3335-3344.	2.4	13
102	Examination of diesel spray combustion in supercritical ambient fluid using large-eddy simulations. <i>International Journal of Engine Research</i> , 2020, 21, 122-133.	1.4	13
103	Experimental feasibility of tailored porous media burners enabled via additive manufacturing. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 6713-6722.	2.4	13
104	Analysis of low-temperature chemistry in a turbulent swirling spray flame near lean blow-out. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 3435-3443.	2.4	13
105	Quantitative model-based imaging of mid-infrared radiation from a turbulent nonpremixed jet flame and plume. <i>Combustion and Flame</i> , 2015, 162, 1275-1283.	2.8	12
106	A regularized deconvolution model for sub-grid dispersion in large eddy simulation of turbulent spray flames. <i>Combustion and Flame</i> , 2019, 207, 89-100.	2.8	12
107	A regularized deconvolution method for turbulent closure modeling in implicitly filtered large-eddy simulation. <i>Combustion and Flame</i> , 2019, 204, 341-355.	2.8	12
108	Multiple-scale thermo-acoustic stability analysis of a coaxial jet combustor. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3863-3871.	2.4	11

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109	A Flamelet Model with Heat-Loss Effects for Predicting Wall-Heat Transfer in Rocket Engines. , 2017, , .		11
110	Sensitivity of Hypersonic Dusty Flows to Physical Modeling of the Particle Phase. Journal of Spacecraft and Rockets, 2021, 58, 653-667.	1.3	11
111	Hot surface ignition of a wall-impinging fuel spray: Modeling and analysis using large-eddy simulation. Combustion and Flame, 2021, 228, 443-456.	2.8	11
112	Efficient projection kernels for discontinuous Galerkin simulations of disperse multiphase flows on arbitrary curved elements. Journal of Computational Physics, 2021, 435, 110266.	1.9	11
113	Infrasound Radiation From Impulsive Volcanic Eruptions: Nonlinear Aeroacoustic 2D Simulations. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021940.	1.4	11
114	Structure of the thermal boundary layer in turbulent channel flows at transcritical conditions. Journal of Fluid Mechanics, 2022, 934, .	1.4	11
115	A TensorFlow simulation framework for scientific computing of fluid flows on tensor processing units. Computer Physics Communications, 2022, 274, 108292.	3.0	11
116	Effects of finite-rate chemistry and detailed transport on the instability of jet diffusion flames. Journal of Fluid Mechanics, 2014, 745, 647-681.	1.4	10
117	Numerical investigation of soot-flame-vortex interaction. Proceedings of the Combustion Institute, 2017, 36, 753-761.	2.4	10
118	Effects of Nozzle Helmholtz Number on Indirect Combustion Noise by Compositional Perturbations. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	0.5	10
119	Formulation of optimal surrogate descriptions of fuels considering sensitivities to experimental uncertainties. Combustion and Flame, 2018, 188, 337-356.	2.8	10
120	Error-controlled kinetics reduction based on non-linear optimization and sensitivity analysis. Combustion and Flame, 2019, 200, 192-206.	2.8	10
121	Ensemble Kalman Filter for Assimilating Experimental Data into Large-Eddy Simulations of Turbulent Flows. Flow, Turbulence and Combustion, 2020, 104, 861-893.	1.4	10
122	Numerical Analysis of Heat and Mass Transfer Coupled With Gaseous Fuel Injection in Reactive Porous Media. Journal of Heat Transfer, 2019, 141, .	1.2	10
123	Prediction of Combustion-Generated Noise in Non-Premixed Turbulent Jet Flames Using LES. , 2006, , .		9
124	Effects of flow-field and mixture inhomogeneities on the ignition dynamics in continuous flow reactors. Combustion and Flame, 2014, 161, 2317-2326.	2.8	9
125	Characterizing spray flame-vortex interaction: A spray spectral diagram for extinction. Combustion and Flame, 2016, 163, 100-114.	2.8	9
126	Phase separation analysis in supercritical injection using large-eddy-simulation and vapor-liquid-equilibrium. , 2017, , .		9

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127	X-ray computed tomography for flame-structure analysis of laminar premixed flames. Combustion and Flame, 2019, 200, 142-154.	2.8	9
128	Uncertainty quantification of combustion noise by generalized polynomial chaos and state-space models. Combustion and Flame, 2020, 217, 113-130.	2.8	9
129	Data Assimilation and Optimal Calibration in Nonlinear Models of Flame Dynamics. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	0.5	9
130	Interpretable data-driven methods for subgrid-scale closure in LES for transcritical LOX/GCH4 combustion. Combustion and Flame, 2022, 239, 111758.	2.8	9
131	Large-Eddy Simulations of Fuel Effect on Gas Turbine Lean Blow-out. , 2017, , .		8
132	Pareto-efficient combustion framework for predicting transient ignition dynamics in turbulent flames: Application to a pulsed jet-in-hot-coflow flame. Combustion and Flame, 2021, 223, 153-165.	2.8	8
133	Investigation of CO recombination in the boundary layer of CH4/O2 rocket engines. Proceedings of the Combustion Institute, 2021, 38, 6403-6411.	2.4	8
134	Structural analysis and regime diagrams of laminar counterflow spray flames with low-temperature chemistry. Proceedings of the Combustion Institute, 2021, 38, 3193-3200.	2.4	8
135	Entropy Residual as a Feature-Based Adaptation Indicator for Simulations of Unsteady Flow , 2016, , .		7
136	Identification of governing physical processes of irregular combustion through machine learning. Shock Waves, 2018, 28, 941-954.	1.0	7
137	Closure of the scalar dissipation rate in the spray flamelet equations through a transport equation for the gradient of the mixture fraction. Combustion and Flame, 2019, 208, 330-350.	2.8	7
138	Kinetics for the hydrolysis of Ti(OC3H7)4: A molecular dynamics simulation study. Proceedings of the Combustion Institute, 2021, 38, 1433-1440.	2.4	7
139	Efficient time stepping for reactive turbulent simulations with stiff chemistry. , 2018, , .		6
140	A new ignition time model applied to super knock. Proceedings of the Combustion Institute, 2019, 37, 3487-3494.	2.4	6
141	Turbulence-induced bias in time-averaged laser absorption tomography of correlated concentration and temperature fields with a first-order correction. Combustion and Flame, 2022, 242, 112210.	2.8	6
142	LES of a Non-Premixed Flame Using an Extended Flamelet/Progress Variable Model. , 2005, , .		5
143	Large Eddy Simulation of Supercritical Mixing and Combustion for Rocket Applications. , 2014, , .		5
144	Investigation of the mechanisms of jet-engine core noise using large-eddy simulation. , 2016, , .		5

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145	Development of Discontinuous Galerkin method for Hypersonic Heating Prediction. , 2017, , .		5
146	Investigation of Lean Combustion Stability, Pressure Drop, and Material Durability in Porous Media Burners. , 2017, , .		5
147	Lyapunov exponent and Wasserstein metric as validation tools for assessing short-time dynamics and quantitative model evaluation of large-eddy simulation. , 2018, , .		5
148	Sensitivity study of high-speed dusty flows over blunt bodies simulated using a discontinuous Galerkin method. , 2019, , .		5
149	Additive Manufacturing of Tailored Macroporous Ceramic Structures for High-Temperature Applications. Advanced Engineering Materials, 2020, 22, 2070035.	1.6	5
150	Thermodynamic cycle analysis of superadiabatic matrix-stabilized combustion for gas turbine engines. Energy, 2020, 207, 118171.	4.5	5
151	Analysis of core-noise contributions in a realistic gas-turbine combustor operated near lean blow-out. Proceedings of the Combustion Institute, 2021, 38, 6203-6211.	2.4	5
152	On the hot surface ignition of a wall-stagnating spray flame. Combustion and Flame, 2022, 240, 111988.	2.8	5
153	Large-Eddy Simulation of a Turbulent Lifted Flame in a Vitiated Co-Flow. , 2009, , .		4
154	Parallel Compressible Solver for Unsteady Turbulent Combustion in Rocket Injectors Using Flamelet Models. , 2013, , .		4
155	Large-Eddy Simulations of a Dual-Mode Scramjet Combustor: Operating Point "A" of University of Virginia's Scramjet Experiments. , 2014, , .		4
156	LES Investigation of Flow Field Sensitivity in a Gas Turbine Model Combustor. , 2014, , .		4
157	Characterization of scalar mixing in dense gaseous jets using X-ray computed tomography. Experiments in Fluids, 2015, 56, 1.	1.1	4
158	Analysis of Combustion Closure Assumptions in a Dual-Mode Scramjet Combustor. , 2016, , .		4
159	Application of Pareto-efficient combustion modeling framework to large eddy simulations of turbulent reacting flows. , 2018, , .		4
160	Comparison of algorithms for simulating multi-component reacting flows using high-order discontinuous Galerkin methods. , 2020, , .		4
161	Using adjoint-based optimization to enhance ignition in non-premixed jets. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200472.	1.0	4
162	Limitations of flamelet formulation for modeling turbulent pool fires. Combustion and Flame, 2021, 227, 346-358.	2.8	4

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163	A discontinuous Galerkin method for wall-modeled large-eddy simulations. Computers and Fluids, 2021, 222, 104933.	1.3	4
164	Towards the Suitability of Information Entropy as an LES Quality Indicator. Flow, Turbulence and Combustion, 2022, 108, 353-385.	1.4	4
165	Development of a particle collision algorithm for discontinuous Galerkin simulations of compressible multiphase flows. Journal of Computational Physics, 2021, 436, 110319.	1.9	4
166	Quantitative X-ray computed tomography: Prospects for detailed in-situ imaging in bench-scale fire measurements. Fire Safety Journal, 2021, 126, 103476.	1.4	4
167	Simulation of a Shear Coaxial GO ₂ /GH ₂ Rocket Injector with DES and LES Using Flamelet Models. , 2012, , .		3
168	Development of Discontinuous Galerkin Method for Detonation and Supersonic Combustion. , 2013, , .		3
169	A general and robust high-order numerical framework for shock-capturing: entropy-bounding, shock detection and artificial viscosity. , 2015, , .		3
170	Flamelet regime characterization for non-premixed turbulent combustion simulations. Combustion and Flame, 2017, 186, 220-235.	2.8	3
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