

# Luc Vervisch

## List of Publications by Citations

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165  
papers

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185  
ext. papers

6,517  
ext. citations

4.1  
avg, IF

6.04  
L-index

#	Paper	IF	Citations
165	Turbulent combustion modeling. <i>Progress in Energy and Combustion Science</i> , <b>2002</b> , 28, 193-266	33.6	642
164	Effects of heat release on triple flames. <i>Physics of Fluids</i> , <b>1995</b> , 7, 1447-1454	4.4	337
163	Large-eddy simulation of a lifted methane jet flame in a vitiated coflow. <i>Combustion and Flame</i> , <b>2008</b> , 152, 415-432	5.3	220
162	Approximating the chemical structure of partially premixed and diffusion counterflow flames using FPI flamelet tabulation. <i>Combustion and Flame</i> , <b>2005</b> , 140, 147-160	5.3	188
161	DIRECT NUMERICAL SIMULATION OF NON-PREMIKED TURBULENT FLAMES. <i>Annual Review of Fluid Mechanics</i> , <b>1998</b> , 30, 655-691	2.2	188
160	Three-dimensional boundary conditions for direct and large-eddy simulation of compressible viscous flows. <i>Journal of Computational Physics</i> , <b>2008</b> , 227, 5105-5143	4.1	182
159	From Large-Eddy Simulation to Direct Numerical Simulation of a lean premixed swirl flame: Filtered laminar flame-PDF modeling. <i>Combustion and Flame</i> , <b>2011</b> , 158, 1340-1357	5.3	176
158	Multidimensional flamelet-generated manifolds for partially premixed combustion. <i>Combustion and Flame</i> , <b>2010</b> , 157, 43-61	5.3	168
157	Analysis of weakly turbulent dilute-spray flames and spray combustion regimes. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 537, 317	3.7	141
156	DNS of a premixed turbulent V flame and LES of a ducted flame using a FSD-PDF subgrid scale closure with FPI-tabulated chemistry. <i>Combustion and Flame</i> , <b>2005</b> , 143, 566-586	5.3	139
155	Spray vaporization in nonpremixed turbulent combustion modeling: a single droplet model. <i>Combustion and Flame</i> , <b>2000</b> , 121, 75-90	5.3	134
154	Large-eddy simulation of a fuel-lean premixed turbulent swirl-burner. <i>Combustion and Flame</i> , <b>2008</b> , 155, 247-266	5.3	129
153	Design of a massively parallel CFD code for complex geometries. <i>Comptes Rendus - Mecanique</i> , <b>2011</b> , 339, 141-148	2.1	125
152	DNS analysis of partially premixed combustion in spray and gaseous turbulent flame-bases stabilized in hot air. <i>Combustion and Flame</i> , <b>2005</b> , 140, 172-195	5.3	125
151	Partially premixed flamelets in LES of nonpremixed turbulent combustion. <i>Combustion Theory and Modelling</i> , <b>2002</b> , 6, 529-551	1.5	121
150	Surface density function in premixed turbulent combustion modeling, similarities between probability density function and flame surface approaches. <i>Physics of Fluids</i> , <b>1995</b> , 7, 2496-2503	4.4	118
149	Role of the progress variable in models for partially premixed turbulent combustion. <i>Combustion and Flame</i> , <b>2005</b> , 141, 431-437	5.3	110

148	Modeling subgrid scale mixture fraction variance in LES of evaporating spray. <i>Combustion and Flame</i> , <b>2006</b> , 146, 635-648	5.3	90
147	Premixed turbulent combustion modeling using tabulated detailed chemistry and PDF. <i>Proceedings of the Combustion Institute</i> , <b>2005</b> , 30, 867-874	5.9	90
146	Triple flames and partially premixed combustion in autoignition of non-premixed turbulent mixtures. <i>Proceedings of the Combustion Institute</i> , <b>1996</b> , 26, 233-240		87
145	Edge flames and partially premixed combustion in diffusion flame quenching. <i>Combustion and Flame</i> , <b>2001</b> , 125, 788-803	5.3	75
144	Three facets of turbulent combustion modelling: DNS of premixed V-flame, LES of lifted nonpremixed flame and RANS of jet-flame. <i>Journal of Turbulence</i> , <b>2004</b> , 5,	2.1	72
143	Theoretical and numerical study of a symmetrical triple flame using the parabolic flame path approximation. <i>Journal of Fluid Mechanics</i> , <b>2000</b> , 415, 227-260	3.7	67
142	Large eddy simulation of forced ignition of an annular bluff-body burner. <i>Combustion and Flame</i> , <b>2010</b> , 157, 579-601	5.3	62
141	An optimization-based approach to detailed chemistry tabulation: Automated progress variable definition. <i>Combustion and Flame</i> , <b>2013</b> , 160, 776-785	5.3	61
140	Effects of heat release in laminar diffusion flames lifted on round jets. <i>Combustion and Flame</i> , <b>2003</b> , 134, 355-368	5.3	59
139	Finite-rate chemistry and transient effects in direct numerical simulations of turbulent nonpremixed flames. <i>Combustion and Flame</i> , <b>1995</b> , 102, 285-297	5.3	56
138	A filtered-laminar-flame PDF sub-grid scale closure for LES of premixed turbulent flames. Part I: Formalism and application to a bluff-body burner with differential diffusion. <i>Combustion and Flame</i> , <b>2014</b> , 161, 1756-1774	5.3	54
137	Estimation of the accuracy of PIV treatments for turbulent flow studies by direct numerical simulation of multi-phase flow. <i>Measurement Science and Technology</i> , <b>2001</b> , 12, 1382-1391	2	53
136	Stability diagram for lift-off and blowout of a round jet laminar diffusion flame. <i>Combustion and Flame</i> , <b>2001</b> , 124, 646-655	5.3	49
135	Using numerics to help the understanding of non-premixed turbulent flames. <i>Proceedings of the Combustion Institute</i> , <b>2000</b> , 28, 11-24	5.9	44
134	Response of the dynamic LES model to heat release induced effects. <i>Physics of Fluids</i> , <b>1996</b> , 8, 2248-2250	4.4	43
133	A filtered-laminar-flame PDF sub-grid-scale closure for LES of premixed turbulent flames: II. Application to a stratified bluff-body burner. <i>Combustion and Flame</i> , <b>2014</b> , 161, 1775-1791	5.3	40
132	A compressible wall-adapting similarity mixed model for large-eddy simulation of the impinging round jet. <i>Physics of Fluids</i> , <b>2009</b> , 21, 035102	4.4	40
131	Two-dimensional weak shock-vortex interaction in a mixing zone. <i>AIAA Journal</i> , <b>1995</b> , 33, 1797-1802	2.1	39

130	Flame resolved simulation of a turbulent premixed bluff-body burner experiment. Part I: Analysis of the reaction zone dynamics with tabulated chemistry. <i>Combustion and Flame</i> , <b>2017</b> , 180, 321-339	5.3	38
129	Tabulation of NOx chemistry for Large-Eddy Simulation of non-premixed turbulent flames. <i>Proceedings of the Combustion Institute</i> , <b>2009</b> , 32, 1555-1561	5.9	37
128	Estimation of three-dimensional flame surface densities from planar images in turbulent premixed combustion. <i>Experiments in Fluids</i> , <b>2010</b> , 49, 267-278	2.5	35
127	Investigating the effects of edge flames in liftoff in non-premixed turbulent combustion. <i>Proceedings of the Combustion Institute</i> , <b>1998</b> , 27, 1239-1245		35
126	Composition-space premixed flamelet solution with differential diffusion for in situ flamelet-generated manifolds. <i>Combustion and Flame</i> , <b>2011</b> , 158, 2009-2016	5.3	33
125	A new LES model coupling flame surface density and tabulated kinetics approaches to investigate knock and pre-ignition in piston engines. <i>Proceedings of the Combustion Institute</i> , <b>2011</b> , 33, 3105-3114	5.9	32
124	Selective Non-catalytic Reduction (SNCR) of Nitrogen Oxide Emissions: A Perspective from Numerical Modeling. <i>Flow, Turbulence and Combustion</i> , <b>2018</b> , 100, 301-340	2.5	31
123	Alkali metal emissions in an early-stage pulverized-coal flame: DNS analysis of reacting layers and chemistry tabulation. <i>Proceedings of the Combustion Institute</i> , <b>2019</b> , 37, 2791-2799	5.9	30
122	Direct mapping from LES resolved scales to filtered-flame generated manifolds using convolutional neural networks. <i>Combustion and Flame</i> , <b>2019</b> , 210, 71-82	5.3	30
121	Large Eddy Simulation of premixed turbulent combustion using approximate deconvolution and explicit flame filtering. <i>Proceedings of the Combustion Institute</i> , <b>2015</b> , 35, 1349-1357	5.9	29
120	Scalar energy fluctuations in Large-Eddy Simulation of turbulent flames: Statistical budgets and mesh quality criterion. <i>Combustion and Flame</i> , <b>2010</b> , 157, 778-789	5.3	29
119	Progress Variable Variance and Filtered Rate Modelling Using Convolutional Neural Networks and Flamelet Methods. <i>Flow, Turbulence and Combustion</i> , <b>2019</b> , 103, 485-501	2.5	28
118	Hybrid presumed pdf and flame surface density approaches for Large-Eddy Simulation of premixed turbulent combustion. <i>Combustion and Flame</i> , <b>2011</b> , 158, 1201-1214	5.3	27
117	Diffusion edge-flame: approximation of the flame tip Damköhler number. <i>Combustion and Flame</i> , <b>2002</b> , 130, 1-14	5.3	27
116	Subgrid-Scale Turbulent Micromixing: Dynamic Approach. <i>AIAA Journal</i> , <b>1998</b> , 36, 336-341	2.1	27
115	Flame resolved simulation of a turbulent premixed bluff-body burner experiment. Part II: A-priori and a-posteriori investigation of sub-grid scale wrinkling closures in the context of artificially thickened flame modeling. <i>Combustion and Flame</i> , <b>2017</b> , 180, 340-350	5.3	26
114	Immersed Boundaries in Large Eddy Simulation of Compressible Flows. <i>Flow, Turbulence and Combustion</i> , <b>2013</b> , 90, 29-68	2.5	24
113	Gradient and Counter-Gradient Modeling in Premixed Flames: Theoretical Study and Application to the LES of a Lean Premixed Turbulent Swirl-Burner. <i>Combustion Science and Technology</i> , <b>2010</b> , 182, 465-479	1.5	24

112	DNS and approximate deconvolution as a tool to analyse one-dimensional filtered flame sub-grid scale modelling. <i>Combustion and Flame</i> , <b>2017</b> , 177, 109-122	5.3	23
111	Automatic reduction and optimisation of chemistry for turbulent combustion modelling: Impact of the canonical problem. <i>Combustion and Flame</i> , <b>2017</b> , 175, 60-79	5.3	23
110	Two approaches of chemistry downsizing for simulating selective non catalytic reduction DeNOx process. <i>Fuel</i> , <b>2014</b> , 118, 291-299	7.1	23
109	Chemistry reduction using machine learning trained from non-premixed micro-mixing modeling: Application to DNS of a syngas turbulent oxy-flame with side-wall effects. <i>Combustion and Flame</i> , <b>2020</b> , 220, 119-129	5.3	22
108	Subgrid-scale turbulent micromixing - Dynamic approach. <i>AIAA Journal</i> , <b>1998</b> , 36, 336-341	2.1	22
107	Direct numerical simulation of shock wavy-wall interaction: analysis of cellular shock structures and flow patterns. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 789, 221-258	3.7	22
106	Premixed flame-wall interaction in a narrow channel: impact of wall thermal conductivity and heat losses. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 856, 5-35	3.7	22
105	Mixing time-history effects in Large Eddy Simulation of non-premixed turbulent flames: Flow-Controlled Chemistry Tabulation. <i>Combustion and Flame</i> , <b>2012</b> , 159, 336-352	5.3	21
104	New Developments in Turbulent Combustion Modeling for Engine Design: ECFM-CLEH Combustion Submodel <b>2007</b> ,		21
103	HydrogenSulphur oxy-flame analysis and single-step flame tabulated chemistry. <i>Fuel</i> , <b>2004</b> , 83, 605-614	7.1	21
102	Measurement and kinetics of elemental and atomic potassium release from a burning biomass pellet. <i>Proceedings of the Combustion Institute</i> , <b>2019</b> , 37, 2681-2688	5.9	20
101	Local volumetric dilatation rate and scalar geometries in a premixed methane-air turbulent jet flame. <i>Proceedings of the Combustion Institute</i> , <b>2015</b> , 35, 1295-1303	5.9	20
100	CHEMICAL IMPACT OF CO AND H2 ADDITION ON THE AUTO-IGNITION DELAY OF HOMOGENEOUS N-HEPTANE/AIR MIXTURES. <i>Combustion Science and Technology</i> , <b>2007</b> , 179, 1937-1962	1.5	19
99	A flame stability diagram for piloted non-premixed oxycombustion of low calorific residual gases. <i>Proceedings of the Combustion Institute</i> , <b>2007</b> , 31, 3385-3392	5.9	19
98	Large Eddy Simulation of turbulent flames in a Trapped Vortex Combustor (TVC) DA flamelet presumed-pdf closure preserving laminar flame speed. <i>Comptes Rendus - Mecanique</i> , <b>2012</b> , 340, 917-932	2.1	18
97	Self-similar behavior and chemistry tabulation of burnt-gas diluted premixed flamelets including heat-loss. <i>Combustion Theory and Modelling</i> , <b>2010</b> , 14, 541-570	1.5	18
96	Optimized Reduced Chemistry and Molecular Transport for Large Eddy Simulation of Partially Premixed Combustion in a Gas Turbine. <i>Combustion Science and Technology</i> , <b>2016</b> , 188, 21-39	1.5	17
95	Hybrid Transported-Tabulated Strategy to Downsize Detailed Chemistry for Numerical Simulation of Premixed Flames. <i>Flow, Turbulence and Combustion</i> , <b>2014</b> , 92, 175-200	2.5	17

94	Combustion of residual steel gases: laminar flame analysis and turbulent flamelet modeling?. <i>Fuel</i> , <b>2003</b> , 82, 983-991	7.1	17
93	Self-ignition scenarios after rapid compression of a turbulent mixture weakly-stratified in temperature. <i>Combustion and Flame</i> , <b>2012</b> , 159, 3358-3371	5.3	16
92	Modeling Engine Turbulent Auto-Ignition Using Tabulated Detailed Chemistry <b>2007</b> ,		16
91	Numerical study of HCl and SO <sub>2</sub> impact on potassium emissions in pulverized-biomass combustion. <i>Fuel Processing Technology</i> , <b>2019</b> , 193, 19-30	7.2	15
90	A Priori Assessment of an Iterative Deconvolution Method for LES Sub-grid Scale Variance Modelling. <i>Flow, Turbulence and Combustion</i> , <b>2018</b> , 101, 33-53	2.5	15
89	Model Equation for the Dynamics of Wrinkled Shockwaves: Comparison with DNS and Experiments. <i>Combustion Science and Technology</i> , <b>2015</b> , 187, 296-323	1.5	15
88	Large-eddy simulation of H <sub>2</sub> /air auto-ignition using tabulated detailed chemistry. <i>Journal of Turbulence</i> , <b>2008</b> , 9, N13	2.1	15
87	A self-contained progress variable space solution method for thermochemical variables and flame speed in freely-propagating premixed flamelets. <i>Proceedings of the Combustion Institute</i> , <b>2019</b> , 37, 1529-1536	5.9	15
86	Modelling alkali metal emissions in large-eddy simulation of a preheated pulverised-coal turbulent jet flame using tabulated chemistry. <i>Combustion Theory and Modelling</i> , <b>2018</b> , 22, 203-236	1.5	15
85	A self-contained composition space solution method for strained and curved premixed flamelets. <i>Combustion and Flame</i> , <b>2019</b> , 207, 342-355	5.3	14
84	Modelling nitrogen oxide emissions in turbulent flames with air dilution: Application to LES of a non-premixed jet-flame. <i>Combustion and Flame</i> , <b>2014</b> , 161, 496-509	5.3	14
83	Large eddy simulation of selective non-catalytic reduction (SNCR): A downsizing procedure for simulating nitric-oxide reduction units. <i>Chemical Engineering Science</i> , <b>2016</b> , 139, 285-303	4.4	13
82	Interlinks between approaches for modeling turbulent flames. <i>Proceedings of the Combustion Institute</i> , <b>2000</b> , 28, 175-183	5.9	13
81	Using self-similar properties of turbulent premixed flames to downsize chemical tables in high-performance numerical simulations. <i>Combustion Theory and Modelling</i> , <b>2008</b> , 12, 1055-1088	1.5	12
80	3-D CFD Analysis of the Combustion Process in a DI Diesel Engine using a Flamelet Model <b>2000</b> ,		12
79	Combustion regime identification from machine learning trained by Raman/Rayleigh line measurements. <i>Combustion and Flame</i> , <b>2020</b> , 219, 268-274	5.3	11
78	Effects of the Local Flow Topologies Upon the Structure of a Premixed Methane-air Turbulent Jet Flame. <i>Flow, Turbulence and Combustion</i> , <b>2016</b> , 96, 535-546	2.5	11
77	A multi-zone self-similar chemistry tabulation with application to auto-ignition including cool-flames effects. <i>Fuel</i> , <b>2012</b> , 91, 87-92	7.1	11

76	Flow streamline based Navier-Stokes Characteristic Boundary Conditions: Modeling for transverse and corner outflows. <i>Computers and Fluids</i> , <b>2011</b> , 51, 115-126	2.8	11
75	Large eddy simulation of turbulent flows in reversing systems. <i>Journal of Turbulence</i> , <b>2003</b> , 4,	2.1	11
74	Scalar flux modeling in turbulent flames using iterative deconvolution. <i>Physical Review Fluids</i> , <b>2018</b> , 3,	2.8	11
73	Analysis of sub-grid scale modeling of the ideal-gas equation of state in hydrogen-oxygen premixed flames. <i>Proceedings of the Combustion Institute</i> , <b>2019</b> , 37, 2345-2351	5.9	10
72	Auto-thermal reforming (ATR) of natural gas: An automated derivation of optimised reduced chemical schemes. <i>Proceedings of the Combustion Institute</i> , <b>2017</b> , 36, 3321-3330	5.9	10
71	Hybrid presumed pdf and flame surface density approaches for Large-Eddy Simulation of premixed turbulent combustion. Part 2: Early flame development after sparking. <i>Combustion and Flame</i> , <b>2011</b> , 158, 1215-1226	5.3	10
70	DNS of partially premixed flame propagating in a turbulent rotating flow. <i>Proceedings of the Combustion Institute</i> , <b>2007</b> , 31, 1657-1664	5.9	10
69	DNS study of spray vaporization and turbulent micro-mixing <b>1998</b> ,		10
68	Simulating upstream flame propagation in a narrow channel after wall preheating: Flame analysis and chemistry reduction strategy. <i>Combustion and Flame</i> , <b>2019</b> , 200, 219-231	5.3	10
67	A hybrid stochastic/fixed-sectional method for solving the population balance equation. <i>Chemical Engineering Science</i> , <b>2019</b> , 209, 115198	4.4	9
66	Numerical study of HCl and SO <sub>2</sub> impact on sodium emissions in pulverized-coal flames. <i>Fuel</i> , <b>2019</b> , 250, 315-326	7.1	9
65	Numerical Study of Smoothly Perturbed Shocks in the Newtonian Limit. <i>Flow, Turbulence and Combustion</i> , <b>2017</b> , 99, 887-908	2.5	9
64	DNS Analysis of Wall Heat Transfer and Combustion Regimes in a Turbulent Non-premixed Wall-jet Flame. <i>Flow, Turbulence and Combustion</i> , <b>2016</b> , 97, 951-969	2.5	8
63	Evaluation of a Neural Network-Based Closure for the Unresolved Stresses in Turbulent Premixed V-Flames. <i>Flow, Turbulence and Combustion</i> , <b>2021</b> , 106, 331-356	2.5	8
62	The role of gravity in the asymmetry of flames in narrow combustion chambers. <i>Combustion and Flame</i> , <b>2019</b> , 203, 238-246	5.3	7
61	Analysis of the Soot Particle Size Distribution in a Laminar Premixed Flame: A Hybrid Stochastic/Fixed-Sectional Approach. <i>Flow, Turbulence and Combustion</i> , <b>2020</b> , 104, 753-775	2.5	7
60	Heat release effects on mixing scales of non-premixed turbulent wall-jets: A direct numerical simulation study. <i>International Journal of Heat and Fluid Flow</i> , <b>2013</b> , 40, 65-80	2.4	7
59	Entropy preserving low dissipative shock capturing with wave-characteristic based sensor for high-order methods. <i>Computers and Fluids</i> , <b>2020</b> , 197, 104357	2.8	7



58	Reynolds Number Effects on Statistics and Structure of an Isothermal Reacting Turbulent Wall-Jet. <i>Flow, Turbulence and Combustion</i> , <b>2014</b> , 92, 931-945	2.5	6
57	Using staggered grids with characteristic boundary conditions when solving compressible reactive Navier-Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , <b>2012</b> , 68, 546-563	1.9	6
56	Modeling non-premixed turbulent combustion in aeronautical engines using PDF-generator <b>1998</b> ,		6
55	Unresolved stress tensor modeling in turbulent premixed V-flames using iterative deconvolution: An a priori assessment. <i>Physical Review Fluids</i> , <b>2019</b> , 4,	2.8	6
54	Machine learning for detailed chemistry reduction in DNS of a syngas turbulent oxy-flame with side-wall effects. <i>Proceedings of the Combustion Institute</i> , <b>2021</b> , 38, 2825-2833	5.9	6
53	Reduced-order modeling for the control of selective noncatalytic reduction of nitrogen monoxide. <i>AIChE Journal</i> , <b>2016</b> , 62, 928-938	3.6	5
52	Vitiated High Karlovitz n-decane/air Turbulent Flames: Scaling Laws and Micro-mixing Modeling Analysis. <i>Flow, Turbulence and Combustion</i> , <b>2019</b> , 102, 235-252	2.5	5
51	Simulation of char-pellet combustion and sodium release inside porous char using lattice Boltzmann method. <i>Combustion and Flame</i> , <b>2020</b> , 211, 325-336	5.3	5
50	Assessing multi-regime combustion in a novel burner configuration with large eddy simulations using tabulated chemistry. <i>Proceedings of the Combustion Institute</i> , <b>2021</b> , 38, 2551-2558	5.9	5
49	Eulerian Scalar Projection in Lagrangian Point Source Context: An Approximate Inverse Filtering Approach. <i>Flow, Turbulence and Combustion</i> , <b>2016</b> , 97, 363-368	2.5	4
48	Solving the population balance equation for non-inertial particles dynamics using probability density function and neural networks: Application to a sooting flame. <i>Physics of Fluids</i> , <b>2021</b> , 33, 013311	4.4	4
47	Machine learning for integrating combustion chemistry in numerical simulations. <i>Energy and AI</i> , <b>2021</b> , 5, 100082	12.6	4
46	Derivation and analysis of two-dimensional composition space equations for multi-regime combustion using orthogonal coordinates. <i>Combustion and Flame</i> , <b>2020</b> , 218, 205-217	5.3	3
45	DNS of premixed turbulent V-flame: coupling spectral and finite difference methods. <i>Comptes Rendus - Mecanique</i> , <b>2005</b> , 333, 95-102	2.1	3
44	Dynamic Subgrid Pdf Modeling for Nonpremixed Turbulent Combustion. <i>ERCOTAC Series</i> , <b>1997</b> , 311-320.	1	3
43	Development of reduced and optimized reaction mechanism for potassium emissions during biomass combustion based on genetic algorithms. <i>Energy</i> , <b>2020</b> , 211, 118565	7.9	3
42	Assessment of subgrid-scale stress statistics in non-premixed turbulent wall-jet flames. <i>Journal of Turbulence</i> , <b>2016</b> , 17, 471-490	2.1	2
41	A massively parallel solution strategy for efficient thermal radiation simulation. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 369, 012017	0.3	2



40	Turbulent flame spreading mechanisms after spark ignition <b>2009</b> ,		2
39	Two recent developments in numerical simulation of premixed and partially premixed turbulent flames. <i>Comptes Rendus - Mecanique</i> , <b>2006</b> , 334, 523-530	2.1	2
38	Large Eddy Simulation of compressible turbulent flows <b>1999</b> ,		2
37	Analysis of combustion modeling tools using DNS of a non-premixed turbulent wall-jet <b>2012</b> ,		2
36	Partially-Premixed Combustion during Autoignition of a Turbulent Nonpremixed Flame. <i>ERCOFTAC Series</i> , <b>2001</b> , 121-128	0.1	2
35	One-dimensional dynamics of gaseous detonations revisited. <i>Combustion and Flame</i> , <b>2021</b> , 232, 111535	5.3	2
34	Flameless combustion of low calorific value gases, experiments, and simulations with advanced radiative heat transfer modeling. <i>Physics of Fluids</i> , <b>2022</b> , 34, 045123	4.4	2
33	A turbulent-energy based mesh refinement procedure for Large Eddy Simulation. <i>Springer Proceedings in Physics</i> , <b>2007</b> , 413-415	0.2	1
32	Dynamics of isoconcentration surfaces in weak shock turbulent mixing interaction <b>1996</b> ,		1
31	Assessment of deconvolution-based flamelet methods for progress variable rate modeling. <i>Aeronautics and Aerospace Open Access Journal</i> , <b>2018</b> , 2,	0.1	1
30	From Discrete and Iterative Deconvolution Operators to Machine Learning for Premixed Turbulent Combustion Modeling <b>2020</b> , 215-232		1
29	Modeling partially premixed turbulent combustion <b>2001</b> , 161-180		1
28	The Calculation of Local Fluctuations in Non Premixed Turbulent Flames <b>1991</b> , 83-113		1
27	Scalar sub-grid energy in large-eddy simulation of turbulent flames: mesh quality criterion. <i>ERCOFTAC Series</i> , <b>2011</b> , 201-210	0.1	1
26	Verification of a low Mach variable-density Navier-Stokes solver for turbulent combustion. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 754, 062005	0.3	1
25	Quantification of the Pre-ignition Front Propagation in DNS of Rapidly Compressed Mixture. <i>Flow, Turbulence and Combustion</i> , <b>2015</b> , 94, 219-235	2.5	0
24	A Comparative Study from Spectral Analyses of High-Order Methods with Non-Constant Advection Velocities. <i>Journal of Scientific Computing</i> , <b>2021</b> , 87, 1	2.3	0
23	Analysis of High-order Explicit LES Dynamic Modeling Applied to Airfoil Flows. <i>Flow, Turbulence and Combustion</i> , 1	2.5	0

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21	A conservative Eulerian-Lagrangian decomposition principle for the solution of multi-scale flow problems at high Schmidt or Prandtl numbers. <i>Journal of Computational Physics</i> , <b>2022</b> , 111216	4.1	0
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6	A WALE-Similarity Mixed Model for Large-Eddy Simulation of Wall Bounded Compressible Turbulent Flows. <i>ERCOFTAC Series</i> , <b>2010</b> , 563-569	0.1	
5	Immersed Boundaries in Large-Eddy Simulation of a transonic cavity flow. <i>ERCOFTAC Series</i> , <b>2011</b> , 119-124	4.1	

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1	Mitigation of post-shock oscillations induced by artificial viscosity in discontinuous finite element methods. <i>Computers and Fluids</i> , <b>2022</b> , 241, 105491	2.8