

Christer Fureby

List of Publications by Year in descending order

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160
papers

9,112
citations

70961

41
h-index

46693

89
g-index

163
all docs

163
docs citations

163
times ranked

5029
citing authors

#	ARTICLE	IF	CITATIONS
1	Subgrid Models, Reaction Mechanisms, and Combustion Models in Large-Eddy Simulation of Supersonic Combustion. <i>AAAA Journal</i> , 2021, 59, 215-227.	1.5	16
2	Large Eddy Simulation of turbulent reacting flows with conjugate heat transfer and radiative heat transfer. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 3021-3029.	2.4	11
3	Evolution equations for the decomposed components of displacement speed in a reactive scalar field. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	10
4	Experimental Investigation of Plasma Discharge Effect on Swirl Flames at a Scaled Siemens Dry Low Emission Burner. , 2021, , .		0
5	LES of H2-air jet combustion in high enthalpy supersonic crossflow. <i>Physics of Fluids</i> , 2021, 33, .	1.6	20
6	Evaluation of Chemical Kinetic Mechanisms for Methane Combustion: A Review from a CFD Perspective. <i>Fuels</i> , 2021, 2, 210-240.	1.3	23
7	Main Challenges and Goals of the H2020 STRATOFly Project. <i>Aerotecnica Missili & Spazio</i> , 2021, 100, 95-110.	0.5	11
8	Reduced Chemical Kinetic Reaction Mechanism for Dimethyl Ether-Air Combustion. <i>Fuels</i> , 2021, 2, 323-344.	1.3	1
9	STRATOFly MR3 “how to reduce the environmental impact of high-speed transportation. , 2021, , .		12
10	Laminar Burning Velocity of Lean Methane/Air Flames under Pulsed Microwave Irradiation. <i>Processes</i> , 2021, 9, 2076.	1.3	2
11	A reduced chemical kinetic reaction mechanism for kerosene-air combustion. <i>Fuel</i> , 2020, 269, 117446.	3.4	27
12	The Complexity of LES of High-Speed Reactive Flows for Combustor Applications. , 2020, , .		0
13	Large Eddy Simulations of the LAPCAT-II and the SSFE Combustor Configurations. , 2020, , .		1
14	A Comparative Study of Subgrid Models, Reaction Mechanisms and Combustion Models in LES of Supersonic Combustion. , 2019, , .		7
15	A Combined Experimental and Computational Study of Jet Engine Combustion “Baseline Engine Operation. , 2019, , .		3
16	A Large Eddy Simulation (LES) Study of the VOLVO and AFRL Bluff Body Combustors at Different Operating Conditions. , 2019, , .		5
17	A setup for studies of laminar flame under microwave irradiation. <i>Review of Scientific Instruments</i> , 2019, 90, 113502.	0.6	5
18	An experimental and computational study of hydrogen-air combustion in the LAPCAT II supersonic combustor. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 3703-3711.	2.4	32

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19	An a priori analysis of a DNS database of turbulent lean premixed methane flames for LES with finite-rate chemistry. Proceedings of the Combustion Institute, 2019, 37, 2601-2609.	2.4	11
20	Large eddy simulation of CH ₄ -air and C ₂ H ₄ -air combustion in a model annular gas turbine combustor. Proceedings of the Combustion Institute, 2019, 37, 5223-5231.	2.4	23
21	RANS, DES and LES of the Flow Past the 6:1 Prolate Spheroid at 10° and 20° Angle of Incidence. , 2019, , .		1
22	A Computational Study of Ramjet, Scramjet and Dual-mode Ramjet Combustion in Combustor with a Cavity Flameholder. , 2018, , .		18
23	The Volvo Validation Rig – A Comparative Study of Large Eddy Simulation Combustion Models at Different Operating Conditions. , 2018, , .		7
24	A Combined Experimental and Computational Study of the LAPCAT II Supersonic Combustor. , 2018, , .		4
25	Skeletal Methane–Air Reaction Mechanism for Large Eddy Simulation of Turbulent Microwave-Assisted Combustion. Energy & Fuels, 2017, 31, 1904-1926.	2.5	40
26	A Comparative Study of Large Eddy Simulation (LES) Combustion Models applied to the Volvo Validation Rig. , 2017, , .		9
27	Investigations of Microwave Stimulation of Turbulent Flames with Implications to Gas Turbine Combustors. , 2017, , .		0
28	Large Eddy Simulation of a premixed bluff body stabilized flame using global and skeletal reaction mechanisms. Combustion and Flame, 2017, 179, 1-22.	2.8	65
29	Assessment of Finite Rate Chemistry Large Eddy Simulation Combustion Models. Flow, Turbulence and Combustion, 2017, 99, 385-409.	1.4	44
30	Grid requirements for LES of ship hydrodynamics in model and full scale. Ocean Engineering, 2017, 143, 259-268.	1.9	27
31	Understanding scramjet combustion using LES of the HyShot II combustor. Proceedings of the Combustion Institute, 2017, 36, 2893-2900.	2.4	53
32	Challenges for Large Eddy Simulation of Engineering Flows. , 2017, , 375-400.		4
33	Analysis of heat-release during TNT/Aluminum afterburning by means of numerical simulations. Proceedings of the Combustion Institute, 2017, 36, 2841-2848.	2.4	6
34	Investigations of microwave stimulation of a turbulent low-swirl flame. Proceedings of the Combustion Institute, 2017, 36, 4121-4128.	2.4	30
35	Small Skeletal Kinetic Reaction Mechanism for Ethylene–Air Combustion. Energy & Fuels, 2017, 31, 14138-14149.	2.5	31
36	Setup for microwave stimulation of a turbulent low-swirl flame. Journal Physics D: Applied Physics, 2016, 49, 185601.	1.3	8

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37	Small Skeletal Kinetic Mechanism for Kerosene Combustion. Energy & Fuels, 2016, 30, 9801-9813.	2.5	29
38	Experimental and numerical study of a generic conventional submarine at 10° yaw. Ocean Engineering, 2016, 116, 1-20.	1.9	39
39	A computational study of the flow around the KVLCC2 model hull at straight ahead conditions and at drift. Ocean Engineering, 2016, 118, 1-16.	1.9	20
40	ON GRID RESOLUTION REQUIREMENTS FOR LES OF WALL-BOUNDED FLOWS. , 2016, , .		3
41	Understanding Scramjet Combustion using LES of the HyShot II Combustor. , 2015, , .		3
42	Numerical laser beam propagation using large eddy simulation of a jet engine flow field. Optical Engineering, 2015, 54, 1.	0.5	10
43	Understanding Scramjet Combustion using LES of the HyShot II Combustor: Stable Combustion and Incipient Thermal Choking. , 2015, , .		7
44	Combustion LES of a Multi-Burner Annular Aeroengine Combustor using a Skeletal Reaction Mechanism for Jet-A Air Mixtures. , 2015, , .		12
45	Reacting flow in an industrial gas turbine combustor: LES and experimental analysis. Proceedings of the Combustion Institute, 2015, 35, 3175-3183.	2.4	60
46	A computational study of supersonic combustion in strut injector and hypermixer flow fields. Proceedings of the Combustion Institute, 2015, 35, 2127-2135.	2.4	103
47	Plasma assisted combustion: Effects of O ₃ on large scale turbulent combustion studied with laser diagnostics and Large Eddy Simulations. Proceedings of the Combustion Institute, 2015, 35, 3487-3495.	2.4	30
48	A computational study of supersonic combustion behind a wedge-shaped flameholder. Shock Waves, 2014, 24, 41-50.	1.0	57
49	Simulating jet exhaust plumes for optical propagation calculations. , 2014, , .		1
50	Investigating ground effects on mixing and afterburning during a TNT explosion. Shock Waves, 2013, 23, 251-261.	1.0	9
51	A computational study of the HyShot II combustor performance. Proceedings of the Combustion Institute, 2013, 34, 2101-2109.	2.4	59
52	Large-Eddy Simulation of an Oscillating Cylinder in a Steady Flow. AIAA Journal, 2013, 51, 773-783.	1.5	3
53	LES combustion modeling for high Re flames using a multi-phase analogy. Combustion and Flame, 2013, 160, 83-96.	2.8	96
54	Simulation of laser propagation through jet plumes using computational fluid dynamics. Proceedings of SPIE, 2013, , .	0.8	3

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55	Extended LES-PaSR model for simulation of turbulent combustion. , 2013, , .		36
56	A Comparative Study of Flamelet and Finite Rate Chemistry LES for a Swirl Stabilized Flame. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	45
57	LES for Supersonic Combustion. , 2012, , .		29
58	Measurements and LES of a SGT-800 Burner in a Combustion Rig. , 2012, , .		3
59	Numerical Simulation of an Oscillating Cylinder Using Large Eddy Simulation and Implicit Large Eddy Simulation. Journal of Fluids Engineering, Transactions of the ASME, 2012, 134, .	0.8	13
60	Large Eddy Simulation of High Re Number Partially Separated Flow. , 2012, , .		1
61	A COMPUTATIONAL STUDY OF A DUAL-MODE RAMJET COMBUSTOR WITH A CAVITY FLAMEHOLDER. International Journal of Energetic Materials and Chemical Propulsion, 2012, 11, 487-510.	0.2	5
62	On Monotonically Integrated Large Eddy Simulation of Turbulent Flows Based on FCT Algorithms. Scientific Computation, 2012, , 67-90.	0.2	1
63	A Computational Study of Supersonic Combustion Relevant to Airâ€“Breathing Engines. , 2012, , 281-286.		0
64	Numerical Simulation of Afterburning during Explosions. , 2012, , 319-324.		1
65	Combustion LES of CESAR Multi-Burner Annular Combustor. , 2011, , .		3
66	Structure and stabilization mechanism of a stratified premixed low swirl flame. Proceedings of the Combustion Institute, 2011, 33, 1567-1574.	2.4	51
67	CFD analysis of the HyShot II scramjet combustor. Proceedings of the Combustion Institute, 2011, 33, 2399-2405.	2.4	80
68	A comparative study of flamelet and finite rate chemistry LES for an axisymmetric dump combustor. Journal of Turbulence, 2011, 12, N24.	0.5	24
69	Experimental and LES Investigation of a SGT-800 Burner in a Combustion Rig. , 2010, , .		2
70	Homogenization Based LES for Turbulent Combustion. Flow, Turbulence and Combustion, 2010, 84, 459-480.	1.4	6
71	LES of a Multi-burner Annular Gas Turbine Combustor. Flow, Turbulence and Combustion, 2010, 84, 543-564.	1.4	52
72	Numerical laser beam propagation using a Large Eddy Simulation refractive index field representing a jet engine exhaust. , 2010, , .		2

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73	Large-Eddy Simulation: Current Capabilities, Recommended Practices, and Future Research. AIAA Journal, 2010, 48, 1772-1784.	1.5	373
74	Vortex-Shedding Induced Trailing-Edge Acoustics. , 2010, , .		2
75	LES of an Oscillating Cylinder in a Steady Flow. , 2010, , .		1
76	Predicting Mixing and Combustion in the Afterburn Stage of Air Blasts. , 2010, , .		0
77	Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet. AIAA Journal, 2010, 48, 540-550.	1.5	154
78	Current Capabilities of DES and LES for Submarines at Straight Course. Journal of Ship Research, 2010, 54, 184-196.	0.5	65
79	Large eddy simulation and laser diagnostic studies on a low swirl stratified premixed flame. Combustion and Flame, 2009, 156, 25-36.	2.8	109
80	Comparison of LES Models Applied to a Bluff Body Stabilized Flame. , 2009, , .		24
81	LES of the Flow Past a 6:1 Prolate Spheroid. , 2009, , .		10
82	Large-Eddy Simulation: Current Capabilities, Recommended Practices, and Future Research. , 2009, , .		25
83	Large eddy simulation modelling of combustion for propulsion applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2957-2969.	1.6	73
84	Towards the use of large eddy simulation in engineering. Progress in Aerospace Sciences, 2008, 44, 381-396.	6.3	76
85	“Large eddy simulation and laser diagnostic studies on a low swirl stratified premixed flame” [Combust. Flame Vol. 155, Issue 3]. Combustion and Flame, 2008, 155, 357.	2.8	13
86	CFD Predictions of Jet Engine Exhaust Plumes. , 2008, , .		6
87	A Comparative Study of LES Turbulent Combustion Models Applied to a Low Swirl Lean Premixed Burner. , 2008, , .		7
88	Towards the Use of Large Eddy Simulation in Engineering. , 2008, , .		1
89	Large Eddy Simulation of Junction Vortex Flows. , 2008, , .		7
90	LES at Work: Quality Management in Practical Large-Eddy Simulations. ERCOFTAC Series, 2008, , 239-258.	0.1	4

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91	ILES and LES of Complex Engineering Turbulent Flows. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1514-1523.	0.8	22
92	On Flux-Limiting-Based Implicit Large Eddy Simulation. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1483-1492.	0.8	41
93	Numerics for ILES. , 2007, , 94-194.		14
94	Compressible Turbulent Shear Flows. , 2007, , 329-369.		1
95	Incompressible Wall-Bounded Flows. , 2007, , 301-328.		0
96	Complex Engineering Turbulent Flows. , 2007, , 470-501.		0
97	Comparison of Flamelet and Finite Rate Chemistry LES for Premixed Turbulent Combustion. , 2007, , .		33
98	Large Eddy Simulation of the Transient Flow Around a Submarine During Maneuver. , 2007, , .		2
99	Simulation of transition and turbulence decay in the Taylorâ€™Green vortex. Journal of Turbulence, 2007, 8, N20.	0.5	109
100	On the justification and extension of mixed models in LES. Journal of Turbulence, 2007, 8, N54.	0.5	46
101	Large eddy simulation of unsteady lean stratified premixed combustion. Combustion and Flame, 2007, 151, 85-103.	2.8	49
102	LES of supersonic combustion in a scramjet engine model. Proceedings of the Combustion Institute, 2007, 31, 2497-2504.	2.4	160
103	An experimental and computational study of a multi-swirl gas turbine combustor. Proceedings of the Combustion Institute, 2007, 31, 3107-3114.	2.4	63
104	A Comparison of Flamelet LES Models for Premixed Turbulent Combustion. , 2006, , .		12
105	Transition and Turbulence Decay in the Taylor-Green Vortex. , 2006, , .		1
106	Numerical investigation of the flow over an axisymmetric hill using LES, DES, and RANS. Journal of Turbulence, 2006, 7, N4.	0.5	29
107	LES and DES of high Reynolds Number Wall Bounded Flows. , 2006, , .		2
108	LES of Premixed Flame Longitudinal Wave Interactions. , 2006, , 77-84.		1

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109	Towards Large Eddy Simulations of Scramjet Flows. , 2006, , 713-720.		0
110	LES studies of the flow in a swirl gas combustor. Proceedings of the Combustion Institute, 2005, 30, 1791-1798.	2.4	73
111	On MILES based on flux-limiting algorithms. International Journal for Numerical Methods in Fluids, 2005, 47, 1043-1051.	0.9	35
112	A fractal flame-wrinkling large eddy simulation model for premixed turbulent combustion. Proceedings of the Combustion Institute, 2005, 30, 593-601.	2.4	120
113	On Monotonically Integrated Large Eddy Simulation of Turbulent Flows Based on FCT Algorithms. , 2005, , 79-104.		21
114	3D Unsteady Computations for Submarine-Like Bodies. , 2005, , .		8
115	Large Eddy Simulation of High-Reynolds-Number Wall Bounded Flows. AIAA Journal, 2004, 42, 457-468.	1.5	86
116	Pulsed TV holography and schlieren studies, and large eddy simulations of a turbulent jet diffusion flame. Combustion and Flame, 2004, 139, 1-15.	2.8	19
117	From canonical to complex flows:recent progress on monotonically integrated LES. Computing in Science and Engineering, 2004, 6, 36-49.	1.2	53
118	Large eddy simulation of the flow around an inclined prolate spheroid. Journal of Turbulence, 2004, 5, .	0.5	27
119	Implicit Large Eddy Simulation of High-Re Flows with Flux-Limiting Schemes (Invited). , 2003, , .		6
120	LES Studies of the Flow in a Swirl Gas Combustor. , 2003, , .		3
121	On Large Eddy Simulation of High-Reynolds Number Wall Bounded Flows. , 2003, , .		4
122	LES Computation of the Flow Over a Smoothly Contoured Ramp. , 2003, , .		5
123	Recent Progress on MILES for High Reynolds Number Flows. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 848-861.	0.8	126
124	Recent progress on MILES for high Reynolds-number flows. , 2002, , .		4
125	On Homogenization-Based Methods for Large-Eddy Simulation. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 892-903.	0.8	10
126	On homogenization-based methods for large eddy simulation. , 2002, , .		2

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127	Large Eddy Simulation of High-Reynolds-Number Free and Wall-Bounded Flows. Journal of Computational Physics, 2002, 181, 68-97.	1.9	257
128	Large eddy simulation of the flow around an inclined prolate spheroid. , 2001, , .		7
129	Large eddy simulation of the flow in a solid rocket motor. , 2001, , .		1
130	A VLES approach applied to flows around complex underwater vehicle hulls. , 2000, , .		2
131	A computational study of combustion instabilities due to vortex shedding. Proceedings of the Combustion Institute, 2000, 28, 783-791.	2.4	56
132	Large Eddy Simulations of the Flow Around a Square Prism. AIAA Journal, 2000, 38, 442-452.	1.5	43
133	Large Eddy Simulation of Combustion Instabilities in a Jet Engine Afterburner Model. Combustion Science and Technology, 2000, 161, 213-243.	1.2	59
134	Large eddy simulation of high Reynolds-number free and wall-bounded flows. , 2000, , .		8
135	Large eddy simulations of supersonic cavity flow. , 2000, , .		11
136	Large eddy simulation of premixed turbulent flow in a rearward-facing-step combustor. , 2000, , .		1
137	Large eddy simulations of the flow around a square prism. AIAA Journal, 2000, 38, 442-452.	1.5	2
138	Towards Large Eddy Simulation of Complex Flows. Lecture Notes in Computational Science and Engineering, 2000, , 181-194.	0.1	0
139	Large Eddy Simulation of Rearward-Facing Step Flow. AIAA Journal, 1999, 37, 1401-1410.	1.5	32
140	Large eddy simulation of supersonic base flow. , 1999, , .		38
141	Monotonically Integrated Large Eddy Simulation of Free Shear Flows. AIAA Journal, 1999, 37, 544-556.	1.5	332
142	Monotonically integrated large eddy simulation of free shear flows. AIAA Journal, 1999, 37, 544-556.	1.5	24
143	Large eddy simulation of rearward-facing step flow. AIAA Journal, 1999, 37, 1401-1410.	1.5	6
144	Application of a flame-wrinkling les combustion model to a turbulent mixing layer. Proceedings of the Combustion Institute, 1998, 27, 899-907.	0.3	206

#	ARTICLE	IF	CITATIONS
145	A tensorial approach to computational continuum mechanics using object-oriented techniques. Computers in Physics, 1998, 12, 620.	0.6	3,639
146	Towards Large Eddy Simulation of flows in complex geometries. , 1998, , .		12
147	Monotonically integrated large eddy simulation of free shear flows. , 1998, , .		4
148	High reynolds number large-eddy simulation of free shear flows. , 1998, , 165-170.		0
149	A comparative study of subgrid scale models in homogeneous isotropic turbulence. Physics of Fluids, 1997, 9, 1416-1429.	1.6	243
150	Differential subgrid stress models in large eddy simulations. Physics of Fluids, 1997, 9, 3578-3580.	1.6	34
151	Mathematical and Physical Constraints on Large-Eddy Simulations. Theoretical and Computational Fluid Dynamics, 1997, 9, 85-102.	0.9	123
152	On subgrid scale modeling in large eddy simulations of compressible fluid flow. Physics of Fluids, 1996, 8, 1301-1311.	1.6	78
153	Large eddy simulation of unsteady combustion. Proceedings of the Combustion Institute, 1996, 26, 241-248.	0.3	57
154	Large eddy simulation of reacting flows applied to bluff body stabilized flames. AIAA Journal, 1995, 33, 2339-2347.	1.5	107
155	Large-eddy simulation of turbulent anisochoric flows. AIAA Journal, 1995, 33, 1263-1272.	1.5	24
156	Large-eddy simulations of bluff body stabilized flames. Proceedings of the Combustion Institute, 1994, 25, 1257-1264.	0.3	77
157	One-dimensional Models for Pulsating Combustion. Combustion Science and Technology, 1993, 94, 337-351.	1.2	8
158	Combustion in Afterburning Behind Explosive Blasts. , 0, , 393-431.		2
159	Plasma Effects on Swirl Flames in a Scaled Dry Low Emission Burner. AIAA Journal, 0, , 1-8.	1.5	2
160	Numerical Study of Heat Transfer, Flow Fields, Turbulent Length Scales and Anisotropy in Corrugated Heat Exchanger Channels. Physics of Fluids, 0, , .	1.6	4