

Christer Fureby

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/713589/publications.pdf>

Version: 2024-02-01

160
papers

9,112
citations

71061

41
h-index

46771

89
g-index

163
all docs

163
docs citations

163
times ranked

5029
citing authors

#	ARTICLE	IF	CITATIONS
1	A tensorial approach to computational continuum mechanics using object-oriented techniques. Computers in Physics, 1998, 12, 620.	0.6	3,639
2	Large-Eddy Simulation: Current Capabilities, Recommended Practices, and Future Research. AIAA Journal, 2010, 48, 1772-1784.	1.5	373
3	Monotonically Integrated Large Eddy Simulation of Free Shear Flows. AIAA Journal, 1999, 37, 544-556.	1.5	332
4	Large Eddy Simulation of High-Reynolds-Number Free and Wall-Bounded Flows. Journal of Computational Physics, 2002, 181, 68-97.	1.9	257
5	A comparative study of subgrid scale models in homogeneous isotropic turbulence. Physics of Fluids, 1997, 9, 1416-1429.	1.6	243
6	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
7	LES of supersonic combustion in a scramjet engine model. Proceedings of the Combustion Institute, 2007, 31, 2497-2504.	2.4	160
8	Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet. AIAA Journal, 2010, 48, 540-550.	1.5	154
9	Recent Progress on MILES for High Reynolds Number Flows. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 848-861.	0.8	126
10	Mathematical and Physical Constraints on Large-Eddy Simulations. Theoretical and Computational Fluid Dynamics, 1997, 9, 85-102.	0.9	123
11	A fractal flame-wrinkling large eddy simulation model for premixed turbulent combustion. Proceedings of the Combustion Institute, 2005, 30, 593-601.	2.4	120
12	Simulation of transition and turbulence decay in the Taylorâ€™Green vortex. Journal of Turbulence, 2007, 8, N20.	0.5	109
13	Large eddy simulation and laser diagnostic studies on a low swirl stratified premixed flame. Combustion and Flame, 2009, 156, 25-36.	2.8	109
14	Large eddy simulation of reacting flows applied to bluff body stabilized flames. AIAA Journal, 1995, 33, 2339-2347.	1.5	107
15	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
16	LES combustion modeling for high Re flames using a multi-phase analogy. Combustion and Flame, 2013, 160, 83-96.	2.8	96
17	Large Eddy Simulation of High-Reynolds-Number Wall Bounded Flows. AIAA Journal, 2004, 42, 457-468.	1.5	86
18	CFD analysis of the HyShot II scramjet combustor. Proceedings of the Combustion Institute, 2011, 33, 2399-2405.	2.4	80

#	ARTICLE	IF	CITATIONS
19	On subgrid scale modeling in large eddy simulations of compressible fluid flow. <i>Physics of Fluids</i> , 1996, 8, 1301-1311.	1.6	78
20	Large-eddy simulations of bluff body stabilized flames. <i>Proceedings of the Combustion Institute</i> , 1994, 25, 1257-1264.	0.3	77
21	Towards the use of large eddy simulation in engineering. <i>Progress in Aerospace Sciences</i> , 2008, 44, 381-396.	6.3	76
22	LES studies of the flow in a swirl gas combustor. <i>Proceedings of the Combustion Institute</i> , 2005, 30, 1791-1798.	2.4	73
23	Large eddy simulation modelling of combustion for propulsion applications. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 2957-2969.	1.6	73
24	Large Eddy Simulation of a premixed bluff body stabilized flame using global and skeletal reaction mechanisms. <i>Combustion and Flame</i> , 2017, 179, 1-22.	2.8	65
25	Current Capabilities of DES and LES for Submarines at Straight Course. <i>Journal of Ship Research</i> , 2010, 54, 184-196.	0.5	65
26	An experimental and computational study of a multi-swirl gas turbine combustor. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 3107-3114.	2.4	63
27	Reacting flow in an industrial gas turbine combustor: LES and experimental analysis. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3175-3183.	2.4	60
28	Large Eddy Simulation of Combustion Instabilities in a Jet Engine Afterburner Model. <i>Combustion Science and Technology</i> , 2000, 161, 213-243.	1.2	59
29	A computational study of the HyShot II combustor performance. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2101-2109.	2.4	59
30	Large eddy simulation of unsteady combustion. <i>Proceedings of the Combustion Institute</i> , 1996, 26, 241-248.	0.3	57
31	A computational study of supersonic combustion behind a wedge-shaped flameholder. <i>Shock Waves</i> , 2014, 24, 41-50.	1.0	57
32	A computational study of combustion instabilities due to vortex shedding. <i>Proceedings of the Combustion Institute</i> , 2000, 28, 783-791.	2.4	56
33	From canonical to complex flows: recent progress on monotonically integrated LES. <i>Computing in Science and Engineering</i> , 2004, 6, 36-49.	1.2	53
34	Understanding scramjet combustion using LES of the HyShot II combustor. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2893-2900.	2.4	53
35	LES of a Multi-burner Annular Gas Turbine Combustor. <i>Flow, Turbulence and Combustion</i> , 2010, 84, 543-564.	1.4	52
36	Structure and stabilization mechanism of a stratified premixed low swirl flame. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 1567-1574.	2.4	51

#	ARTICLE	IF	CITATIONS
37	Large eddy simulation of unsteady lean stratified premixed combustion. <i>Combustion and Flame</i> , 2007, 151, 85-103.	2.8	49
38	On the justification and extension of mixed models in LES. <i>Journal of Turbulence</i> , 2007, 8, N54.	0.5	46
39	A Comparative Study of Flamelet and Finite Rate Chemistry LES for a Swirl Stabilized Flame. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	0.5	45
40	Assessment of Finite Rate Chemistry Large Eddy Simulation Combustion Models. <i>Flow, Turbulence and Combustion</i> , 2017, 99, 385-409.	1.4	44
41	Large Eddy Simulations of the Flow Around a Square Prism. <i>AIAA Journal</i> , 2000, 38, 442-452.	1.5	43
42	On Flux-Limiting-Based Implicit Large Eddy Simulation. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2007, 129, 1483-1492.	0.8	41
43	Skeletal Methane-Air Reaction Mechanism for Large Eddy Simulation of Turbulent Microwave-Assisted Combustion. <i>Energy & Fuels</i> , 2017, 31, 1904-1926.	2.5	40
44	Experimental and numerical study of a generic conventional submarine at 10° yaw. <i>Ocean Engineering</i> , 2016, 116, 1-20.	1.9	39
45	Large eddy simulation of supersonic base flow. , 1999, , .		38
46	Extended LES-PaSR model for simulation of turbulent combustion. , 2013, , .		36
47	On MILES based on flux-limiting algorithms. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 47, 1043-1051.	0.9	35
48	Differential subgrid stress models in large eddy simulations. <i>Physics of Fluids</i> , 1997, 9, 3578-3580.	1.6	34
49	Comparison of Flamelet and Finite Rate Chemistry LES for Premixed Turbulent Combustion. , 2007, , .		33
50	Large Eddy Simulation of Rearward-Facing Step Flow. <i>AIAA Journal</i> , 1999, 37, 1401-1410.	1.5	32
51	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
52	Small Skeletal Kinetic Reaction Mechanism for Ethylene-Air Combustion. <i>Energy & Fuels</i> , 2017, 31, 14138-14149.	2.5	31
53	Plasma assisted combustion: Effects of O ₃ on large scale turbulent combustion studied with laser diagnostics and Large Eddy Simulations. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3487-3495.	2.4	30
54	Investigations of microwave stimulation of a turbulent low-swirl flame. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4121-4128.	2.4	30

#	ARTICLE	IF	CITATIONS
55	Numerical investigation of the flow over an axisymmetric hill using LES, DES, and RANS. Journal of Turbulence, 2006, 7, N4.	0.5	29
56	LES for Supersonic Combustion. , 2012, , .		29
57	Small Skeletal Kinetic Mechanism for Kerosene Combustion. Energy & Fuels, 2016, 30, 9801-9813.	2.5	29
58	Large eddy simulation of the flow around an inclined prolate spheroid. Journal of Turbulence, 2004, 5, .	0.5	27
59	Grid requirements for LES of ship hydrodynamics in model and full scale. Ocean Engineering, 2017, 143, 259-268.	1.9	27
60	A reduced chemical kinetic reaction mechanism for kerosene-air combustion. Fuel, 2020, 269, 117446.	3.4	27
61	Large-Eddy Simulation: Current Capabilities, Recommended Practices, and Future Research. , 2009, , .		25
62	Large-eddy simulation of turbulent anisochoric flows. AIAA Journal, 1995, 33, 1263-1272.	1.5	24
63	Comparison of LES Models Applied to a Bluff Body Stabilized Flame. , 2009, , .		24
64	A comparative study of flamelet and finite rate chemistry LES for an axisymmetric dump combustor. Journal of Turbulence, 2011, 12, N24.	0.5	24
65	Monotonically integrated large eddy simulation of free shear flows. AIAA Journal, 1999, 37, 544-556.	1.5	24
66	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
67	Evaluation of Chemical Kinetic Mechanisms for Methane Combustion: A Review from a CFD Perspective. Fuels, 2021, 2, 210-240.	1.3	23
68	ILES and LES of Complex Engineering Turbulent Flows. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1514-1523.	0.8	22
69	On Monotonically Integrated Large Eddy Simulation of Turbulent Flows Based on FCT Algorithms. , 2005, , 79-104.		21
70	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
71	LES of H ₂ -air jet combustion in high enthalpy supersonic crossflow. Physics of Fluids, 2021, 33, .	1.6	20
72	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

#	ARTICLE	IF	CITATIONS
73	A Computational Study of Ramjet, Scramjet and Dual-mode Ramjet Combustion in Combustor with a Cavity Flameholder. , 2018, , .		18
74	Subgrid Models, Reaction Mechanisms, and Combustion Models in Large-Eddy Simulation of Supersonic Combustion. AIAA Journal, 2021, 59, 215-227.	1.5	16
75	Numerics for ILES. , 2007, , 94-194.		14
76	“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
77	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
78	Towards Large Eddy Simulation of flows in complex geometries. , 1998, , .		12
79	A Comparison of Flamelet LES Models for Premixed Turbulent Combustion. , 2006, , .		12
80	Combustion LES of a Multi-Burner Annular Aeroengine Combustor using a Skeletal Reaction Mechanism for Jet-A Air Mixtures. , 2015, , .		12
81	STRATOFly MR3 “ how to reduce the environmental impact of high-speed transportation. , 2021, , .		12
82	Large eddy simulations of supersonic cavity flow. , 2000, , .		11
83	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
84	Large Eddy Simulation of turbulent reacting flows with conjugate heat transfer and radiative heat transfer. Proceedings of the Combustion Institute, 2021, 38, 3021-3029.	2.4	11
85	Main Challenges and Goals of the H2020 STRATOFly Project. Aerotecnica Missili & Spazio, 2021, 100, 95-110.	0.5	11
86	On Homogenization-Based Methods for Large-Eddy Simulation. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 892-903.	0.8	10
87	LES of the Flow Past a 6:1 Prolate Spheroid. , 2009, , .		10
88	Numerical laser beam propagation using large eddy simulation of a jet engine flow field. Optical Engineering, 2015, 54, 1.	0.5	10
89	Evolution equations for the decomposed components of displacement speed in a reactive scalar field. Journal of Fluid Mechanics, 2021, 911, .	1.4	10
90	Investigating ground effects on mixing and afterburning during a TNT explosion. Shock Waves, 2013, 23, 251-261.	1.0	9

#	ARTICLE	IF	CITATIONS
91	A Comparative Study of Large Eddy Simulation (LES) Combustion Models applied to the Volvo Validation Rig. , 2017, , .		9
92	One-dimensional Models for Pulsating Combustion. Combustion Science and Technology, 1993, 94, 337-351.	1.2	8
93	Large eddy simulation of high Reynolds-number free and wall-bounded flows. , 2000, , .		8
94	3D Unsteady Computations for Submarine-Like Bodies. , 2005, , .		8
95	Setup for microwave stimulation of a turbulent low-swirl flame. Journal Physics D: Applied Physics, 2016, 49, 185601.	1.3	8
96	Large eddy simulation of the flow around an inclined prolate spheroid. , 2001, , .		7
97	A Comparative Study of LES Turbulent Combustion Models Applied to a Low Swirl Lean Premixed Burner. , 2008, , .		7
98	Large Eddy Simulation of Junction Vortex Flows. , 2008, , .		7
99	Understanding Scramjet Combustion using LES of the HyShot II Combustor: Stable Combustion and Incipient Thermal Choking. , 2015, , .		7
100	The Volvo Validation Rig – A Comparative Study of Large Eddy Simulation Combustion Models at Different Operating Conditions. , 2018, , .		7
101	A Comparative Study of Subgrid Models, Reaction Mechanisms and Combustion Models in LES of Supersonic Combustion. , 2019, , .		7
102	Implicit Large Eddy Simulation of High-Re Flows with Flux-Limiting Schemes (Invited). , 2003, , .		6
103	CFD Predictions of Jet Engine Exhaust Plumes. , 2008, , .		6
104	Homogenization Based LES for Turbulent Combustion. Flow, Turbulence and Combustion, 2010, 84, 459-480.	1.4	6
105	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
106	Large eddy simulation of rearward-facing step flow. AIAA Journal, 1999, 37, 1401-1410.	1.5	6
107	LES Computation of the Flow Over a Smoothly Contoured Ramp. , 2003, , .		5
108	A Large Eddy Simulation (LES) Study of the VOLVO and AFRL Bluff Body Combustors at Different Operating Conditions. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
109	A setup for studies of laminar flame under microwave irradiation. Review of Scientific Instruments, 2019, 90, 113502.	0.6	5
110	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
111	Monotonically integrated large eddy simulation of free shear flows. , 1998, , .		4
112	Recent progress on MILES for high Reynolds-number flows. , 2002, , .		4
113	On Large Eddy Simulation of High-Reynolds Number Wall Bounded Flows. , 2003, , .		4
114	Challenges for Large Eddy Simulation of Engineering Flows. , 2017, , 375-400.		4
115	A Combined Experimental and Computational Study of the LAPCAT II Supersonic Combustor. , 2018, , .		4
116	LES at Work: Quality Management in Practical Large-Eddy Simulations. ERCOFTAC Series, 2008, , 239-258.	0.1	4
117	Numerical Study of Heat Transfer, Flow Fields, Turbulent Length Scales and Anisotropy in Corrugated Heat Exchanger Channels. Physics of Fluids, 0, , .	1.6	4
118	LES Studies of the Flow in a Swirl Gas Combustor. , 2003, , .		3
119	Combustion LES of CESAR Multi-Burner Annular Combustor. , 2011, , .		3
120	Measurements and LES of a SGT-800 Burner in a Combustion Rig. , 2012, , .		3
121	Large-Eddy Simulation of an Oscillating Cylinder in a Steady Flow. AIAA Journal, 2013, 51, 773-783.	1.5	3
122	Simulation of laser propagation through jet plumes using computational fluid dynamics. Proceedings of SPIE, 2013, , .	0.8	3
123	Understanding Scramjet Combustion using LES of the HyShot II Combustor. , 2015, , .		3
124	A Combined Experimental and Computational Study of Jet Engine Combustion â€œ Baseline Engine Operation. , 2019, , .		3
125	ON GRID RESOLUTION REQUIREMENTS FOR LES OF WALL-BOUNDED FLOWS. , 2016, , .		3
126	A VLES approach applied to flows around complex underwater vehicle hulls. , 2000, , .		2

#	ARTICLE	IF	CITATIONS
127	On homogenization-based methods for large eddy simulation. , 2002, , .		2
128	LES and DES of high Reynolds Number Wall Bounded Flows. , 2006, , .		2
129	Large Eddy Simulation of the Transient Flow Around a Submarine During Maneuver. , 2007, , .		2
130	Experimental and LES Investigation of a SGT-800 Burner in a Combustion Rig. , 2010, , .		2
131	Numerical laser beam propagation using a Large Eddy Simulation refractive index field representing a jet engine exhaust. , 2010, , .		2
132	Vortex-Shedding Induced Trailing-Edge Acoustics. , 2010, , .		2
133	Combustion in Afterburning Behind Explosive Blasts. , 0, , 393-431.		2
134	Large eddy simulations of the flow around a square prism. AIAA Journal, 2000, 38, 442-452.	1.5	2
135	Laminar Burning Velocity of Lean Methane/Air Flames under Pulsed Microwave Irradiation. Processes, 2021, 9, 2076.	1.3	2
136	Plasma Effects on Swirl Flames in a Scaled Dry Low Emission Burner. AIAA Journal, 0, , 1-8.	1.5	2
137	Large eddy simulation of premixed turbulent flow in a rearward-facing-step combustor. , 2000, , .		1
138	Large eddy simulation of the flow in a solid rocket motor. , 2001, , .		1
139	Transition and Turbulence Decay in the Taylor-Green Vortex. , 2006, , .		1
140	Compressible Turbulent Shear Flows. , 2007, , 329-369.		1
141	Towards the Use of Large Eddy Simulation in Engineering. , 2008, , .		1
142	LES of an Oscillating Cylinder in a Steady Flow. , 2010, , .		1
143	Large Eddy Simulation of High Re Number Partially Separated Flow. , 2012, , .		1
144	Simulating jet exhaust plumes for optical propagation calculations. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
145	RANS, DES and LES of the Flow Past the 6:1 Prolate Spheroid at 10° and 20° Angle of Incidence. , 2019, , .		1
146	Large Eddy Simulations of the LAPCAT-II and the SSFE Combustor Configurations. , 2020, , .		1
147	Reduced Chemical Kinetic Reaction Mechanism for Dimethyl Ether-Air Combustion. Fuels, 2021, 2, 323-344.	1.3	1
148	LES of Premixed Flame Longitudinal Wave Interactions. , 2006, , 77-84.		1
149	On Monotonically Integrated Large Eddy Simulation of Turbulent Flows Based on FCT Algorithms. Scientific Computation, 2012, , 67-90.	0.2	1
150	Numerical Simulation of Afterburning during Explosions. , 2012, , 319-324.		1
151	High reynolds number large-eddy simulation of free shear flows. , 1998, , 165-170.		0
152	Incompressible Wall-Bounded Flows. , 2007, , 301-328.		0
153	Complex Engineering Turbulent Flows. , 2007, , 470-501.		0
154	Predicting Mixing and Combustion in the Afterburn Stage of Air Blasts. , 2010, , .		0
155	Investigations of Microwave Stimulation of Turbulent Flames with Implications to Gas Turbine Combustors. , 2017, , .		0
156	The Complexity of LES of High-Speed Reactive Flows for Combustor Applications. , 2020, , .		0
157	Experimental Investigation of Plasma Discharge Effect on Swirl Flames at a Scaled Siemens Dry Low Emission Burner. , 2021, , .		0
158	Towards Large Eddy Simulation of Complex Flows. Lecture Notes in Computational Science and Engineering, 2000, , 181-194.	0.1	0
159	A Computational Study of Supersonic Combustion Relevant to Air-Breathing Engines. , 2012, , 281-286.		0
160	Towards Large Eddy Simulations of Scramjet Flows. , 2006, , 713-720.		0