

# Johan Larsson

## List of Publications by Year in descending order

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67  
papers

3,289  
citations

218677

26  
h-index

189892

50  
g-index

68  
all docs

68  
docs citations

68  
times ranked

1500  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crossflow effects on shock wave/turbulent boundary layer interactions. Theoretical and Computational Fluid Dynamics, 2022, 36, 327-344.	2.2	12
2	Large-Eddy Simulations of Idealized Shock/Boundary-Layer Interactions with Crossflow. AIAA Journal, 2022, 60, 2767-2779.	2.6	10
3	HLPW-4/GMGW-3: Wall-Modeled LES and Lattice-Boltzmann Technology Focus Group Workshop Summary. , 2022, , .		12
4	Grid Sufficiency in Large Eddy Simulations as a Hypothesis Test. International Journal of Computational Fluid Dynamics, 2022, 36, 260-264.	1.2	1
5	Modular Method for Estimation of Velocity and Temperature Profiles in High-Speed Boundary Layers. AIAA Journal, 2022, 60, 5165-5172.	2.6	4
6	Simple Inflow Sponge for Faster Turbulent Boundary-Layer Development. AIAA Journal, 2021, 59, 4271-4273.	2.6	6
7	The Germano identity error and the residual of the LES governing equation. Journal of Computational Physics, 2021, 443, 110544.	3.8	3
8	Towards systematic grid selection in LES: Identifying the optimal spatial resolution by minimizing the solution sensitivity. Computers and Fluids, 2020, 201, 104488.	2.5	10
9	Assessment of Grid Anisotropy Effects on Large-Eddy-Simulation Models with Different Length Scales. AIAA Journal, 2020, 58, 4522-4533.	2.6	9
10	Adaptive Determination of the Wall Modeled Region in WMLES. , 2020, , .		0
11	Parametric numerical study of passive scalar mixing in shock turbulence interaction. Journal of Fluid Mechanics, 2020, 895, .	3.4	10
12	Effects of a nonadiabatic wall on hypersonic shock/boundary-layer interactions. Physical Review Fluids, 2020, 5, .	2.5	37
13	Data-driven compressibility transformation for turbulent wall layers. Physical Review Fluids, 2020, 5, .	2.5	45
14	Using large-eddy simulations to design a new hypersonic shock/boundary-layer interaction experiment. , 2019, , .		1
15	Investigating the effects of non-adiabatic walls on shock/boundary-layer interaction at low Reynolds number using direct numerical simulations. , 2018, , .		3
16	Grid-adaptation for chaotic multi-scale simulations as a verification-driven inverse problem. , 2018, , .		5
17	Thermodynamic fluctuations in canonical shock-turbulence interaction: effect of shock strength. Theoretical and Computational Fluid Dynamics, 2018, 32, 629-654.	2.2	19
18	Effects of a nonadiabatic wall on supersonic shock/boundary-layer interactions. Physical Review Fluids, 2018, 3, .	2.5	49

#	ARTICLE	IF	CITATIONS
19	Stability and modal analysis of shock/boundary layer interactions. Theoretical and Computational Fluid Dynamics, 2017, 31, 33-50.	2.2	86
20	Anisotropic grid-adaptation in large eddy simulations of wall-bounded and free shear flows. , 2017, , .		3
21	Anisotropic grid-adaptation in large eddy simulations. Computers and Fluids, 2017, 156, 146-161.	2.5	27
22	Mean velocity scaling for compressible wall turbulence with heat transfer. Physics of Fluids, 2016, 28, .	4.0	198
23	Turbulent energy flux generated by shock/homogeneous-turbulence interaction. Journal of Fluid Mechanics, 2016, 796, 113-157.	3.4	43
24	Large eddy simulation with modeled wall-stress: recent progress and future directions. Mechanical Engineering Reviews, 2016, 3, 15-00418-15-00418.	4.7	290
25	Kovaszny Mode Decomposition of Velocity-Temperature Correlation in Canonical Shock-Turbulence Interaction. Flow, Turbulence and Combustion, 2016, 97, 787-810.	2.6	14
26	Mesh convergence for turbulent combustion. Discrete and Continuous Dynamical Systems, 2016, 36, 4383-4402.	0.9	0
27	Incipient thermal choking and stable shock-train formation in the heat-release region of a scramjet combustor. Part I: Shock-tunnel experiments. Combustion and Flame, 2015, 162, 921-931.	5.2	79
28	Exploiting active subspaces to quantify uncertainty in the numerical simulation of the HyShot II scramjet. Journal of Computational Physics, 2015, 302, 1-20.	3.8	109
29	Incipient thermal choking and stable shock-train formation in the heat-release region of a scramjet combustor. Part II: Large eddy simulations. Combustion and Flame, 2015, 162, 907-920.	5.2	96
30	The deviation from parallel shear flow as an indicator of linear eddy-viscosity model inaccuracy. Physics of Fluids, 2014, 26, .	4.0	28
31	DNS of a flat-plate supersonic boundary layer using the discontinuous Galerkin spectral element method. , 2014, , .		2
32	Subgrid-scale modeling for implicit large eddy simulation of compressible flows and shock-turbulence interaction. Physics of Fluids, 2014, 26, .	4.0	83
33	Confinement effects in shock wave/turbulent boundary layer interactions through wall-modelled large-eddy simulations. Journal of Fluid Mechanics, 2014, 758, 5-62.	3.4	108
34	Study of unsteady shock motion in shock/turbulence interaction. , 2014, , .		0
35	The prospect of using large eddy and detached eddy simulations in engineering design, and the research required to get there. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130329.	3.4	30
36	Dynamic non-equilibrium wall-modeling for large eddy simulation at high Reynolds numbers. Physics of Fluids, 2013, 25, .	4.0	117

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37	Solving the compressible navier-stokes equations on up to 1.97 million cores and 4.1 trillion grid points. , 2013, , .		25
38	Reynolds- and Mach-number effects in canonical shock-turbulence interaction. Journal of Fluid Mechanics, 2013, 717, 293-321.	3.4	124
39	Large eddy simulation of high-lift devices. , 2013, , .		30
40	Modeling of structural uncertainties in Reynolds-averaged Navier-Stokes closures. Physics of Fluids, 2013, 25, .	4.0	85
41	Wall-Modeled Large Eddy Simulation of the McDonnell-Douglas 30P/30N High-Lift Airfoil in Near-Stall Conditions. , 2012, , .		6
42	A Non-Equilibrium Wall-Model for LES of Shock/Boundary Layer Interaction at High Reynolds Number. , 2012, , .		5
43	Wall-modeling in large eddy simulation: Length scales, grid resolution, and accuracy. Physics of Fluids, 2012, 24, .	4.0	360
44	Large eddy simulation of the HyShot II scramjet combustor using a supersonic flamelet model. , 2012, , .		10
45	Improving Low-Frequency Characteristics of Recycling/Rescaling Inflow Turbulence Generation. AIAA Journal, 2011, 49, 582-597.	2.6	89
46	Numerical errors generated by WENO-based interface-capturing schemes in multifluid computations. , 2011, , .		2
47	Analysis and Correction of Errors Generated by Slowly Moving Shocks. , 2011, , .		3
48	Nonlinear effects in the combined Rayleigh-Taylor/Kelvin-Helmholtz instability. Physics of Fluids, 2011, 23, .	4.0	46
49	Assessment of high-resolution methods for numerical simulations of compressible turbulence with shock waves. Journal of Computational Physics, 2010, 229, 1213-1237.	3.8	315
50	A co-located incompressible Navier-Stokes solver with exact mass, momentum and kinetic energy conservation in the inviscid limit. Journal of Computational Physics, 2010, 229, 4425-4430.	3.8	27
51	Parallel domain connectivity algorithm for unsteady flow computations using overlapping and adaptive grids. Journal of Computational Physics, 2010, 229, 4703-4723.	3.8	132
52	Effect of Shock-Capturing Errors on Turbulence Statistics. AIAA Journal, 2010, 48, 1554-1557.	2.6	12
53	Shock-turbulence interaction: What we know and what we can learn from peta-scale simulations. Journal of Physics: Conference Series, 2009, 180, 012032.	0.4	19
54	Direct numerical simulation of canonical shock/turbulence interaction. Physics of Fluids, 2009, 21, .	4.0	179

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55	Blending technique for compressible inflow turbulence: Algorithm localization and accuracy assessment. <i>Journal of Computational Physics</i> , 2009, 228, 933-937.	3.8	12
56	Suitability of artificial bulk viscosity for large-eddy simulation of turbulent flows with shocks. <i>Journal of Computational Physics</i> , 2009, 228, 7368-7374.	3.8	99
57	On implicit turbulence modeling for LES of compressible flows. <i>Springer Proceedings in Physics</i> , 2009, , 873-875.	0.2	6
58	Stability criteria for hybrid difference methods. <i>Journal of Computational Physics</i> , 2008, 227, 2886-2898.	3.8	37
59	Simulation of aeroacoustic resonance in a deep cavity with grazing flow using a pressure-based solver. <i>International Journal of Computational Fluid Dynamics</i> , 2008, 22, 39-47.	1.2	5
60	Toward petascale shock/turbulence computations. <i>Journal of Physics: Conference Series</i> , 2008, 125, 012045.	0.4	1
61	Computational issues and algorithm assessment for shock/turbulence interaction problems. <i>Journal of Physics: Conference Series</i> , 2007, 78, 012014.	0.4	8
62	The artificial buffer layer and the effects of forcing in hybrid LES/RANS. <i>International Journal of Heat and Fluid Flow</i> , 2007, 28, 1443-1459.	2.4	24
63	Feedback-controlled forcing in hybrid LES/RANS. <i>International Journal of Computational Fluid Dynamics</i> , 2006, 20, 687-699.	1.2	17
64	Conditional semicoarsening multigrid algorithm for the Poisson equation on anisotropic grids. <i>Journal of Computational Physics</i> , 2005, 208, 368-383.	3.8	16
65	Aeroacoustic Investigation of an Open Cavity at Low Mach Number. <i>AIAA Journal</i> , 2004, 42, 2462-2473.	2.6	44
66	Aero Acoustic Investigation of an Open Cavity at Low Mach Number. , 2003, , .		0
67	Adaptive Determination of the Optimal Exchange Location in Wall-Modeled Large-Eddy Simulation. <i>AIAA Journal</i> , 0, , 1-12.	2.6	1