Sanjiva K Lele

List of Publications by Year
in descending order

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63	4,675	136740	197535
papers	citations	32 h-index	49 g-index

64	64	64	2060
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sound generation in a mixing layer. Journal of Fluid Mechanics, 1997, 330, 375-409.	1.4	355
2	Compressibility Effects on Turbulence. Annual Review of Fluid Mechanics, 1994, 26, 211-254.	10.8	328
3	Direct numerical simulation of isotropic turbulence interacting with a weak shock wave. Journal of Fluid Mechanics, 1993, 251, 533-562.	1.4	255
4	Simulation of spatially evolving turbulence and the applicability of Taylorâ€™s hypothesis in compressible flow. Physics of Fluids A, Fluid Dynamics, 1992, 4, 1521-1530.	1.6	242
5	On the coherent drag-reducing and turbulence-enhancing behaviour of polymers in wall flows. Journal of Fluid Mechanics, 2004, 514, 271-280.	1.4	224
6	On using large-eddy simulation for the prediction of noise from cold and heated turbulent jets. Physics of Fluids, 2005, 17, 085103.	1.6	208
7	Wind farm power optimization through wake steering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14495-14500.	3.3	201
8	Assessment of localized artificial diffusivity scheme for large-eddy simulation of compressible turbulent flows. Journal of Computational Physics, 2010, 229, 1739-1762.	1.9	199
9	Eddy shocklets in decaying compressible turbulence. Physics of Fluids A, Fluid Dynamics, 1991, 3, 657-664.	1.6	195
10	Convective and absolute electrokinetic instability with conductivity gradients. Journal of Fluid Mechanics, 2005, 524, 263-303.	1.4	181
11	Unstructured Large-Eddy Simulations of Supersonic Jets. AIAA Journal, 2017, 55, 1164-1184.	1.5	176
12	Direct computation of the sound generated by vortex pairing in an axisymmetric jet. Journal of Fluid Mechanics, 1999, 383, 113-142.	1.4	164
13	Direct computation of the sound from a compressible co-rotating vortex pair. Journal of Fluid Mechanics, 1995, 285, 181.	1.4	158
14	Importance of the nozzle-exit boundary-layer state in subsonic turbulent jets. Journal of Fluid Mechanics, 2018, 851, 83-124.	1.4	154
15	The scattering of sound waves by a vortex: numerical simulations and analytical solutions. Journal of Fluid Mechanics, 1994, 260, 271-298.	1.4	136
16	The interaction of an isotropic field of acoustic waves with a shock wave. Journal of Fluid Mechanics, 1995, 300, 383-407.	1.4	114
17	Global modes and transient response of a cold supersonic jet. Journal of Fluid Mechanics, 2011, 669, 225-241.	1.4	110
18	Convective effects and the role of quadrupole sources for aerofoil aeroacoustics. Journal of Fluid Mechanics, 2012, 708, 502-538.	1.4	106

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19	Shock leakage through an unsteady vortex-laden mixing layer: application to jet screech. Journal of Fluid Mechanics, 2003, 490, 139-167.	1.4	93
20	Direct numerical simulation of polymer-induced drag reduction in turbulent boundary layer flow. Physics of Fluids, 2005, 17, 011705.	1.6	92
21	On the computation of space-time correlations by large-eddy simulation. Physics of Fluids, 2004, 16, 3859-3867.	1.6	68
22	The free compressible viscous vortex. Journal of Fluid Mechanics, 1991, 230, 45-73.	1.4	65
23	Crackle Noise in Heated Supersonic Jets. Journal of Engineering for Gas Turbines and Power, 2013, 135, .	0.5	56
24	On the density ratio effect on the growth rate of a compressible mixing layer. Physics of Fluids, 1994, 6, 1073-1075.	1.6	53
25	Linear and nonlinear processes in two-dimensional mixing layer dynamics and sound radiation. Journal of Fluid Mechanics, 2009, 625, 321-351.	1.4	52
26	Shockâ€jump relations in a turbulent flow. Physics of Fluids A, Fluid Dynamics, 1992, 4, 2900-2905.	1.6	46
27	Inviscid instability of a skewed compressible mixing layer. Journal of Fluid Mechanics, 1993, 249, 441.	1.4	46
28	Compressible turbulent channel flow with impedance boundary conditions. Physics of Fluids, 2015, 27, .	1.6	46
29	Large eddy simulation of free-stream turbulence effects on heat transfer to a high-pressure turbine cascade. Journal of Turbulence, 2010, 11, N6.	0.5	42
30	Modelling of jet noise: a perspective from large-eddy simulations. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190081.	1.6	42
31	Subfilter-scale enrichment of planetary boundary layer large eddy simulation using discrete Fourierâ€“Gabor modes. Journal of Fluid Mechanics, 2017, 819, 494-539.	1.4	41
32	Low-frequency sound sources in high-speed turbulent jets. Journal of Fluid Mechanics, 2008, 617, 231-253.	1.4	39
33	A second golden age of aeroacoustics?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130321.	1.6	38
34	A numerical investigation of sound generation in supersonic jet screech. , 2000, , .		37
35	Sound generated by instability wave/shock-cell interaction in supersonic jets. Journal of Fluid Mechanics, 2007, 587, 173-215.	1.4	34
36	Inviscid instability of compressible swirling mixing layers. Physics of Fluids, 1999, 11, 450-461.	1.6	30

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37	Stagnation-point flow under free-stream turbulence. Journal of Fluid Mechanics, 2007, 590, 1-33.	1.4	25
38	Vortexâ€induced disturbance field in a compressible shear layer. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1412-1419.	1.6	24
39	The response of anisotropic turbulence to rapid homogeneous oneâ€dimensional compression. Physics of Fluids, 1994, 6, 1052-1062.	1.6	21
40	Nozzle Wall Modeling in Unstructured Large Eddy Simulations for Hot Supersonic Jet Predictions. , 2013, , .		21
41	Spatial Scale Decomposition of Shear Layer Turbulence and the Sound Sources Associated with the Missing Scales in a Large-Eddy Simulation. , 2002, , .		16
42	Evolution of isolated turbulent trailing vortices. Physics of Fluids, 2008, 20, .	1.6	15
43	The source of crackle noise in heated supersonic jets. , 2013, , .		15
44	Drag of a heated sphere at low Reynolds numbers in the absence of buoyancy. Journal of Fluid Mechanics, 2019, 869, 264-291.	1.4	15
45	Distortion of upstream disturbances in a Hiemenz boundary layer. Journal of Fluid Mechanics, 2004, 519, 201-232.	1.4	14
46	Aeroacoustics of a supersonic rectangular jet: Experiments and LES predictions. , 2012, , .		12
47	Investigating the effects of temperature non-uniformity on supersonic jet noise with large-eddy simulation. , 2019, , .		10
48	A Statistical Subgrid Scale Noise Model: Formulation. , 2003, , .		9
49	Unstructured Large Eddy Simulations for Nozzle Interior Flow Modeling and Jet Noise Predictions. , 2014, , .		9
50	Wind Turbine Performance in Very Large Wind Farms: Betz Analysis Revisited. Energies, 2020, 13, 1078.	1.6	9
51	Vorticity form of turbulence transport equations. Physics of Fluids A, Fluid Dynamics, 1992, 4, 1767-1772.	1.6	8
52	Asymptotic growth of disturbances from spatially compact source in a skewed mixing layer. Physics of Fluids, 1999, 11, 1153-1160.	1.6	5
53	Interaction of vortex wakes and buoyant jets: A study of two-dimensional dynamics. Physics of Fluids, 2007, 19, 086601.	1.6	4
54	Sound generation due to unsteady motion of a cylinder. Physics of Fluids, 2011, 23, 046102.	1.6	4

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55	The dynamics of nonlinear instability waves in laminar heated and unheated compressible mixing layers. Physics of Fluids, 2009, 21, 094103.	1.6	3
56	Towards large-eddy simulations of twin rectangular jets including screech. , 2020, , .		3
57	Settling of two-way momentum and energy coupled particles subject to Boussinesq and non-Boussinesq heating. Theoretical and Computational Fluid Dynamics, 2021, 35, 539.	0.9	3
58	Effects of heating on noise radiation from turbulent mixing layers with initially laminar and turbulent boundary layers. , 2012, , .		2
59	Low Mach, compressibility, and finite size effects of localized uniform heat sources in a gas. Theoretical and Computational Fluid Dynamics, 2019, 33, 341-358.	0.9	1
60	Turbulence in compressible flows. , 2021, , 399-481.		1
61	Listening while learning. Nature, 1994, 371, 454-454.	13.7	0
62	Numerical Simulations and Acoustic Modeling of a Co-annular Nozzle with an Internal Mixing Duct. , 2022, , .		0
63	Subgrid-scale pressure field of scale-enriched large eddy simulations using Gabor modes. Physical Review Fluids, 2021, 6, .	1.0	0