## Sanjiva K Lele

## List of Publications by Citations

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29 59 3,574 59 h-index g-index citations papers 64 4,225 5.1 5.53 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
59	Sound generation in a mixing layer. <i>Journal of Fluid Mechanics</i> , <b>1997</b> , 330, 375-409	3.7	290
58	Compressibility Effects on Turbulence. Annual Review of Fluid Mechanics, 1994, 26, 211-254	22	256
57	Direct numerical simulation of isotropic turbulence interacting with a weak shock wave. <i>Journal of Fluid Mechanics</i> , <b>1993</b> , 251, 533-562	3.7	211
56	Simulation of spatially evolving turbulence and the applicability of Taylor hypothesis in compressible flow. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1992</b> , 4, 1521-1530		204
55	On the coherent drag-reducing and turbulence-enhancing behaviour of polymers in wall flows. Journal of Fluid Mechanics, <b>2004</b> , 514, 271-280	3.7	193
54	On using large-eddy simulation for the prediction of noise from cold and heated turbulent jets. <i>Physics of Fluids</i> , <b>2005</b> , 17, 085103	4.4	169
53	Eddy shocklets in decaying compressible turbulence. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1991</b> , 3, 657-66	4	163
52	Convective and absolute electrokinetic instability with conductivity gradients. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 524, 263-303	3.7	156
51	Assessment of localized artificial diffusivity scheme for large-eddy simulation of compressible turbulent flows. <i>Journal of Computational Physics</i> , <b>2010</b> , 229, 1739-1762	4.1	140
50	Direct computation of the sound generated by vortex pairing in an axisymmetric jet. <i>Journal of Fluid Mechanics</i> , <b>1999</b> , 383, 113-142	3.7	138
49	Direct computation of the sound from a compressible co-rotating vortex pair. <i>Journal of Fluid Mechanics</i> , <b>1995</b> , 285, 181	3.7	131
48	The scattering of sound waves by a vortex: numerical simulations and analytical solutions. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 260, 271-298	3.7	108
47	Wind farm power optimization through wake steering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 14495-14500	11.5	105
46	Unstructured Large-Eddy Simulations of Supersonic Jets. <i>AIAA Journal</i> , <b>2017</b> , 55, 1164-1184	2.1	98
45	The interaction of an isotropic field of acoustic waves with a shock wave. <i>Journal of Fluid Mechanics</i> , <b>1995</b> , 300, 383-407	3.7	87
44	Global modes and transient response of a cold supersonic jet. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 669, 22	5- <sub>32.#</sub> 1	84
43	Importance of the nozzle-exit boundary-layer state in subsonic turbulent jets. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 851, 83-124	3.7	83

## (2014-2005)

42	Direct numerical simulation of polymer-induced drag reduction in turbulent boundary layer flow. <i>Physics of Fluids</i> , <b>2005</b> , 17, 011705	4.4	77
41	Convective effects and the role of quadrupole sources for aerofoil aeroacoustics. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 708, 502-538	3.7	66
40	Shock leakage through an unsteady vortex-laden mixing layer: application to jet screech. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 490, 139-167	3.7	64
39	The free compressible viscous vortex. <i>Journal of Fluid Mechanics</i> , <b>1991</b> , 230, 45-73	3.7	57
38	On the computation of space-time correlations by large-eddy simulation. <i>Physics of Fluids</i> , <b>2004</b> , 16, 385	5 <b>9<sub>†-</sub>3</b> 486	<b>7</b> 56
37	On the density ratio effect on the growth rate of a compressible mixing layer. <i>Physics of Fluids</i> , <b>1994</b> , 6, 1073-1075	4.4	44
36	Crackle Noise in Heated Supersonic Jets. <i>Journal of Engineering for Gas Turbines and Power</i> , <b>2013</b> , 135,	1.7	43
35	Linear and nonlinear processes in two-dimensional mixing layer dynamics and sound radiation. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 625, 321-351	3.7	41
34	Shock-jump relations in a turbulent flow. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1992</b> , 4, 2900-2905		39
33	Inviscid instability of a skewed compressible mixing layer. <i>Journal of Fluid Mechanics</i> , <b>1993</b> , 249, 441	3.7	36
32	Low-frequency sound sources in high-speed turbulent jets. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 617, 231-2.	5 <b>3</b> .7	34
31	Subfilter-scale enrichment of planetary boundary layer large eddy simulation using discrete Fourier abor modes. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 819, 494-539	3.7	29
30	Compressible turbulent channel flow with impedance boundary conditions. <i>Physics of Fluids</i> , <b>2015</b> , 27, 035107	4.4	28
29	Sound generated by instability wave/shock-cell interaction in supersonic jets. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 587, 173-215	3.7	28
28	Inviscid instability of compressible swirling mixing layers. <i>Physics of Fluids</i> , <b>1999</b> , 11, 450-461	4.4	27
27	Large eddy simulation of free-stream turbulence effects on heat transfer to a high-pressure turbine cascade. <i>Journal of Turbulence</i> , <b>2010</b> , 11, N6	2.1	26
26	A numerical investigation of sound generation in supersonic jet screech 2000,		26
25	A second golden age of aeroacoustics?. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2014</b> , 372, 20130321	3	25

24	Stagnation-point flow under free-stream turbulence. Journal of Fluid Mechanics, 2007, 590, 1-33	3.7	24
23	Vortex-induced disturbance field in a compressible shear layer. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1993</b> , 5, 1412-1419		20
22	Nozzle Wall Modeling in Unstructured Large Eddy Simulations for Hot Supersonic Jet Predictions <b>2013</b> ,		18
21	Modelling of jet noise: a perspective from large-eddy simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2019</b> , 377, 20190081	3	17
20	Distortion of upstream disturbances in a Hiemenz boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2004</b> , 519, 201-232	3.7	14
19	Spatial Scale Decomposition of Shear Layer Turbulence and the Sound Sources Associated with the Missing Scales in a Large-Eddy Simulation <b>2002</b> ,		14
18	The response of anisotropic turbulence to rapid homogeneous one-dimensional compression. <i>Physics of Fluids</i> , <b>1994</b> , 6, 1052-1062	4.4	14
17	The source of crackle noise in heated supersonic jets <b>2013</b> ,		13
16	Evolution of isolated turbulent trailing vortices. <i>Physics of Fluids</i> , <b>2008</b> , 20, 035102	4.4	12
15	Aeroacoustics of a supersonic rectangular jet: Experiments and LES predictions 2012,		10
14	A Statistical Subgrid Scale Noise Model: Formulation 2003,		8
13			
	Drag of a heated sphere at low Reynolds numbers in the absence of buoyancy. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 869, 264-291	3.7	7
12		3.7	7
12	Mechanics, 2019, 869, 264-291  Unstructured Large Eddy Simulations for Nozzle Interior Flow Modeling and Jet Noise Predictions		
	Mechanics, 2019, 869, 264-291  Unstructured Large Eddy Simulations for Nozzle Interior Flow Modeling and Jet Noise Predictions 2014,	3.1	7
11	Mechanics, 2019, 869, 264-291  Unstructured Large Eddy Simulations for Nozzle Interior Flow Modeling and Jet Noise Predictions 2014,  Wind Turbine Performance in Very Large Wind Farms: Betz Analysis Revisited. Energies, 2020, 13, 1078	3.1	7
11	Unstructured Large Eddy Simulations for Nozzle Interior Flow Modeling and Jet Noise Predictions 2014,  Wind Turbine Performance in Very Large Wind Farms: Betz Analysis Revisited. <i>Energies</i> , 2020, 13, 1078  Vorticity form of turbulence transport equations. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 1767-1772  Investigating the effects of temperature non-uniformity on supersonic jet noise with large-eddy simulation 2019,	3.1	<ul><li>7</li><li>6</li><li>6</li></ul>

## LIST OF PUBLICATIONS

6	Interaction of vortex wakes and buoyant jets: A study of two-dimensional dynamics. <i>Physics of Fluids</i> , <b>2007</b> , 19, 086601	4.4	3
5	Effects of heating on noise radiation from turbulent mixing layers with initially laminar and turbulent boundary layers <b>2012</b> ,		2
4	The dynamics of nonlinear instability waves in laminar heated and unheated compressible mixing layers. <i>Physics of Fluids</i> , <b>2009</b> , 21, 094103	4.4	2
3	Low Mach, compressibility, and finite size effects of localized uniform heat sources in a gas. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2019</b> , 33, 341-358	2.3	1
2	Settling of two-way momentum and energy coupled particles subject to Boussinesq and non-Boussinesq heating. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2021</b> , 35, 539	2.3	1
1	Turbulence in compressible flows <b>2021</b> , 399-481		О