

Charitha M De Silva

List of Publications by Year in descending order

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51
papers

1,580
citations

394421

19
h-index

330143

37
g-index

51
all docs

51
docs citations

51
times ranked

1743
citing authors

#	ARTICLE	IF	CITATIONS
1	Airborne or Droplet Precautions for Health Workers Treating Coronavirus Disease 2019?. Journal of Infectious Diseases, 2022, 225, 1561-1568.	4.0	382
2	The turbulent/non-turbulent interface and entrainment in a boundary layer. Journal of Fluid Mechanics, 2014, 742, 119-151.	3.4	151
3	Uniform momentum zones in turbulent boundary layers. Journal of Fluid Mechanics, 2016, 786, 309-331.	3.4	113
4	Multiscale Geometry and Scaling of the Turbulent-Nonturbulent Interface in High Reynolds Number Boundary Layers. Physical Review Letters, 2013, 111, 044501.	7.8	79
5	Scaling of second- and higher-order structure functions in turbulent boundary layers. Journal of Fluid Mechanics, 2015, 769, 654-686.	3.4	65
6	An experimental framework to capture the flow dynamics of droplets expelled by a sneeze. Experiments in Fluids, 2020, 61, 176.	2.4	56
7	Multiscale analysis of fluxes at the turbulent/non-turbulent interface in high Reynolds number boundary layers. Physics of Fluids, 2014, 26, .	4.0	54
8	Interfaces of uniform momentum zones in turbulent boundary layers. Journal of Fluid Mechanics, 2017, 820, 451-478.	3.4	54
9	The quiescent core of turbulent channel flow. Journal of Fluid Mechanics, 2014, 751, 228-254.	3.4	50
10	High spatial range velocity measurements in a high Reynolds number turbulent boundary layer. Physics of Fluids, 2014, 26, .	4.0	46
11	Face coverings and mask to minimise droplet dispersion and aerosolisation: a video case study. Thorax, 2020, 75, 1024-1025.	5.6	45
12	Droplets and Aerosols Generated by Singing and the Risk of Coronavirus Disease 2019 for Choirs. Clinical Infectious Diseases, 2021, 72, e639-e641.	5.8	44
13	Minimization of divergence error in volumetric velocity measurements and implications for turbulence statistics. Experiments in Fluids, 2013, 54, 1.	2.4	40
14	Enhancing Tomo-PIV reconstruction quality by reducing ghost particles. Measurement Science and Technology, 2013, 24, 024010.	2.6	27
15	Recovery of wall-shear stress to equilibrium flow conditions after a rough-to-smooth step change in turbulent boundary layers. Journal of Fluid Mechanics, 2019, 872, 472-491.	3.4	25
16	Assessment of tomographic PIV in wall-bounded turbulence using direct numerical simulation data. Experiments in Fluids, 2012, 52, 425-440.	2.4	23
17	Large coherence of spanwise velocity in turbulent boundary layers. Journal of Fluid Mechanics, 2018, 847, 161-185.	3.4	23
18	Influence of spatial exclusion on the statistical behavior of attached eddies. Physical Review Fluids, 2016, 1, .	2.5	21

#	ARTICLE	IF	CITATIONS
19	On the mixing length eddies and logarithmic mean velocity profile in wall turbulence. <i>Journal of Fluid Mechanics</i> , 2020, 887, .	3.4	19
20	Flow dynamics of droplets expelled during sneezing. <i>Physics of Fluids</i> , 2021, 33, 111901.	4.0	19
21	Experimental Evidence for the Optimal Design of a High-Performing Cloth Mask. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 2791-2802.	5.2	18
22	Generalization of the PIV loss-of-correlation formula introduced by Keane and Adrian. <i>Experiments in Fluids</i> , 2017, 58, 1.	2.4	16
23	Towards an improved spatial representation of a boundary layer from the attached eddy model. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	15
24	Periodicity of large-scale coherence in turbulent boundary layers. <i>International Journal of Heat and Fluid Flow</i> , 2020, 83, 108575.	2.4	14
25	Passive PV module cooling under free convection through vortex generators. <i>Renewable Energy</i> , 2022, 190, 319-329.	8.9	14
26	Flame image velocimetry analysis of reacting jet flow fields with a variation of injection pressure in a small-bore diesel engine. <i>International Journal of Engine Research</i> , 2021, 22, 2968-2981.	2.3	13
27	Experimental study of a turbulent boundary layer with a rough-to-smooth change in surface conditions at high Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2021, 923, .	3.4	13
28	Universality of the energy-containing structures in wall-bounded turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 823, 498-510.	3.4	10
29	Statistics of turbulence in the energy-containing range of Taylor's Couette compared to canonical wall-bounded flows. <i>Journal of Fluid Mechanics</i> , 2017, 830, 797-819.	3.4	10
30	Active Micropump-Mixer for Rapid Antiplatelet Drug Screening in Whole Blood. <i>Analytical Chemistry</i> , 2019, 91, 10830-10839.	6.5	9
31	Boundary layer measurements over a body of revolution using long-distance particle image velocimetry. <i>International Journal of Heat and Fluid Flow</i> , 2020, 83, 108591.	2.4	9
32	Bespoke flow experiments to capture the dynamics of coughs and sneezes. <i>Measurement Science and Technology</i> , 2021, 32, 125302.	2.6	9
33	Data-driven enhancement of coherent structure-based models for predicting instantaneous wall turbulence. <i>International Journal of Heat and Fluid Flow</i> , 2021, 92, 108879.	2.4	9
34	Towards realistic simulations of human cough: Effect of droplet emission duration and spread angle. <i>International Journal of Multiphase Flow</i> , 2022, 147, 103883.	3.4	9
35	Experimental Investigation of Spout Deflection in a Rectangular Spouted Bed by the PIV Method. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 13810-13819.	3.7	8
36	Prograde vortices, internal shear layers and the Taylor microscale in high-Reynolds-number turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2021, 920, .	3.4	8

#	ARTICLE	IF	CITATIONS
37	Impact of mismatched and misaligned laser light sheet profiles on PIV performance. Experiments in Fluids, 2018, 59, 1.	2.4	7
38	Tomographic PIV analysis of physiological flow conditions in a patient-specific arteriovenous fistula. Experiments in Fluids, 2020, 61, 1.	2.4	7
39	Uniform-momentum zones in a turbulent boundary layer subjected to freestream turbulence. Journal of Fluid Mechanics, 2021, 915, .	3.4	7
40	Third-order structure function in the logarithmic layer of boundary-layer turbulence. Physical Review Fluids, 2021, 6, .	2.5	7
41	Evidence of Long-Distance Aerial Convection of Variola Virus and Implications for Disease Control. Viruses, 2020, 12, 33.	3.3	6
42	Self-similar geometries within the inertial subrange of scales in boundary layer turbulence. Journal of Fluid Mechanics, 2022, 942, .	3.4	5
43	Beam stability and warm-up effects of Nd:YAG lasers used in particle image velocimetry. Measurement Science and Technology, 2017, 28, 065301.	2.6	4
44	Towards fully-resolved PIV measurements in high Reynolds number turbulent boundary layers with DSLR cameras. Journal of Visualization, 2018, 21, 369-379.	1.8	4
45	Three-dimensional numerical simulation of air-flow in inkjet print-zones. International Journal of Heat and Fluid Flow, 2022, 93, 108911.	2.4	4
46	Impact of juxta-anastomotic stent implantation on the haemodynamics within a single representative patient AVF. International Journal of Heat and Fluid Flow, 2021, 92, 108874.	2.4	3
47	Systematic Review and Evaluation of Mathematical Attack Models of Human Inhalational Anthrax for Supporting Public Health Decision Making and Response. Prehospital and Disaster Medicine, 2020, 35, 412-419.	1.3	2
48	Experimental Investigation of Tip Vortex Formation Noise Produced by Wall-Mounted Finite Airfoils. Journal of Aerospace Engineering, 2021, 34, 04021079.	1.4	2
49	Experimental fluid dynamics characterization of a novel micropump-mixer. Biomicrofluidics, 2020, 14, 044116.	2.4	1
50	Experimental Investigation of the Flow Characteristics and Noise Generation at the Wing-Wall Junction. Journal of Aerospace Engineering, 2021, 34, 04021054.	1.4	1
51	Investigation of the mean pressure field in the wing-wall junction region. International Journal of Heat and Fluid Flow, 2022, 94, 108942.	2.4	0