

Carlos B Da Silva

List of Publications by Year in descending order

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69
papers

1,880
citations

293460

24
h-index

286692

43
g-index

73
all docs

73
docs citations

73
times ranked

859
citing authors

#	ARTICLE	IF	CITATIONS
1	Turbulent entrainment in viscoelastic fluids. <i>Journal of Fluid Mechanics</i> , 2022, 934, .	1.4	9
2	Thermal boundary layer of laminar flow of dilute polymer solution. <i>International Journal of Heat and Mass Transfer</i> , 2022, 185, 122248.	2.5	2
3	The steady laminar planar mixing layer flow of viscoelastic FENE-P fluids. <i>Journal of Engineering Mathematics</i> , 2022, 132, 1.	0.6	0
4	Strategy to Apply DNS in a Supersonic Ejector. <i>U Porto Journal of Engineering</i> , 2022, 8, 1-9.	0.2	0
5	Revisiting the flat plate laminar boundary layer flow of viscoelastic FENE-P fluids. <i>Physics of Fluids</i> , 2021, 33, 023103.	1.6	7
6	Universality of small-scale motions within the turbulent/non-turbulent interface layer. <i>Journal of Fluid Mechanics</i> , 2021, 916, .	1.4	14
7	Large eddy simulations of turbulent planar jets of viscoelastic fluids. <i>Physics of Fluids</i> , 2021, 33, 045110.	1.6	3
8	Asymptotic scaling laws for the irrotational motions bordering a turbulent region. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	1.4	3
9	Triple decomposition of velocity gradient tensor in homogeneous isotropic turbulence. <i>Computers and Fluids</i> , 2020, 198, 104389.	1.3	21
10	Direct numerical simulations of turbulent viscoelastic jets. <i>Journal of Fluid Mechanics</i> , 2020, 899, .	1.4	18
11	Local similarity solution for steady laminar planar jet flow of viscoelastic FENE-P fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 279, 104265.	1.0	12
12	Scale-by-scale kinetic energy budget near the turbulent/nonturbulent interface. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	12
13	Non-dimensional energy dissipation rate near the turbulent/non-turbulent interfacial layer in free shear flows and shear free turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 875, 321-344.	1.4	16
14	How the turbulent/non-turbulent interface is different from internal turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 866, 216-238.	1.4	19
15	The scaling of the turbulent/non-turbulent interface at high Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2018, 843, 156-179.	1.4	54
16	The scaling of straining motions in homogeneous isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 829, 31-64.	1.4	34
17	Kolmogorov's Lagrangian similarity law revisited. <i>Physics of Fluids</i> , 2017, 29, .	1.6	9
18	The behaviour of the scalar gradient across the turbulent/non-turbulent interface in jets. <i>Physics of Fluids</i> , 2017, 29, .	1.6	23

#	ARTICLE	IF	CITATIONS
19	Geometrical aspects of turbulent/non-turbulent interfaces with and without mean shear. <i>Physics of Fluids</i> , 2017, 29, 085105.	1.6	22
20	Vorticity Evolution near the Turbulent/Non-Turbulent Interfaces in Free-Shear Flows. , 2017, , .		2
21	Role of an isolated eddy near the turbulent/non-turbulent interface layer. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	27
22	Large-eddy simulations of forced isotropic turbulence with viscoelastic fluids described by the FENE-P model. <i>Physics of Fluids</i> , 2016, 28, .	1.6	12
23	Multi-particle dispersion during entrainment in turbulent free-shear flows. <i>Journal of Fluid Mechanics</i> , 2016, 805, .	1.4	11
24	Lagrangian properties of the entrainment across turbulent/non-turbulent interface layers. <i>Physics of Fluids</i> , 2016, 28, 031701.	1.6	35
25	Energy spectra in elasto-inertial turbulence. <i>Physics of Fluids</i> , 2016, 28, .	1.6	31
26	Grid and subgrid-scale interactions in viscoelastic turbulent flow and implications for modelling. <i>Journal of Turbulence</i> , 2016, 17, 543-571.	0.5	9
27	The Imbalance Between Enstrophy Production and Destruction in Homogeneous Isotropic Unsteady Turbulence. <i>Springer Proceedings in Physics</i> , 2016, , 41-46.	0.1	0
28	The effect of subgrid-scale models on the entrainment of a passive scalar in a turbulent planar jet. <i>Journal of Turbulence</i> , 2015, 16, 342-366.	0.5	15
29	The effect of viscoelasticity on the turbulent kinetic energy cascade. <i>Journal of Fluid Mechanics</i> , 2014, 760, 39-62.	1.4	44
30	Characteristics of the viscous superlayer in shear free turbulence and in planar turbulent jets. <i>Physics of Fluids</i> , 2014, 26, .	1.6	48
31	Interfacial Layers Between Regions of Different Turbulence Intensity. <i>Annual Review of Fluid Mechanics</i> , 2014, 46, 567-590.	10.8	207
32	Origin of the imbalance between energy cascade and dissipation in turbulence. <i>Physical Review E</i> , 2014, 90, 023003.	0.8	22
33	Characteristics of the turbulent/nonturbulent interface in boundary layers, jets and shear-free turbulence. <i>Journal of Physics: Conference Series</i> , 2014, 506, 012015.	0.3	22
34	Kinetic energy budgets near the turbulent/nonturbulent interface in jets. <i>Physics of Fluids</i> , 2013, 25, .	1.6	50
35	Lagrangian statistics across the turbulent-nonturbulent interface in a turbulent plane jet. <i>Physical Review E</i> , 2013, 88, 043001.	0.8	54
36	Turbulence dynamics near a turbulent/non-turbulent interface. <i>Journal of Fluid Mechanics</i> , 2012, 695, 257-287.	1.4	19

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37	Effect of LES closures on the entrainment of a passive scalar in a turbulent planar jet. , 2012, , .		0
38	LARGE EDDY SIMULATIONS OF TURBULENT HEATED JETS. , 2012, , .		3
39	The Dynamics of Turbulent Scalar Mixing near the Edge of a Shear Layer. Journal of Physics: Conference Series, 2011, 318, 052049.	0.3	9
40	The intense vorticity structures near the turbulent/non-turbulent interface in a jet. Journal of Fluid Mechanics, 2011, 685, 165-190.	1.4	72
41	The role of coherent vortices near the turbulent/non-turbulent interface in a planar jet. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 738-753.	1.6	57
42	Interfaces and inhomogeneous turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 811-832.	1.6	32
43	Relevance of the subgrid-scales for large eddy simulations of turbulenceâ€“radiation interactions in a turbulent plane jet. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1250-1256.	1.1	24
44	The influence of the non-resolved scales of thermal radiation in large eddy simulation of turbulent flows: A fundamental study. International Journal of Heat and Mass Transfer, 2010, 53, 2897-2907.	2.5	42
45	The thickness of the turbulent/nonturbulent interface is equal to the radius of the large vorticity structures near the edge of the shear layer. Physics of Fluids, 2010, 22, .	1.6	79
46	INFLUENCE OF THE LARGE EDDY SIMULATION SUBGRID-SCALES ON THERMAL RADIATION IN A NON-ISOTHERMAL TURBULENT PLANE JET. , 2010, , .		0
47	Radiation statistics in homogeneous isotropic turbulence. New Journal of Physics, 2009, 11, 093001.	1.2	16
48	The behavior of subgrid-scale models near the turbulent/nonturbulent interface in jets. Physics of Fluids, 2009, 21, .	1.6	28
49	Analysis of the turbulenceâ€“radiation interactions for large eddy simulations of turbulent flows. International Journal of Heat and Mass Transfer, 2009, 52, 2243-2254.	2.5	49
50	The effects of acceleration in jets: kinematics of the near field vortices. Theoretical and Computational Fluid Dynamics, 2009, 23, 287-296.	0.9	2
51	The role of the intense vorticity structures in the turbulent structure of the jet edge. Springer Proceedings in Physics, 2009, , 317-319.	0.1	0
52	Kinetic energy budgets at the edge of a turbulent jet. , 2009, , .		0
53	Turbulent Entrainment in Jets: The role of Kinetic Energy. Springer Proceedings in Physics, 2009, , 561-564.	0.1	0
54	A challenging new problem for LES: the flow near the turbulent/nonturbulent interface. Springer Proceedings in Physics, 2009, , 751-754.	0.1	0

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55	Invariants of the velocity-gradient, rate-of-strain, and rate-of-rotation tensors across the turbulent/nonturbulent interface in jets. <i>Physics of Fluids</i> , 2008, 20, .	1.6	233
56	Analysis of the viscous/molecular subgrid-scale dissipation terms in LES based on transport equations:A prioritests. <i>Journal of Turbulence</i> , 2008, 9, N25.	0.5	4
57	Effects of molecular diffusion on the subgrid-scale modeling of passive scalars. <i>Physics of Fluids</i> , 2008, 20, 025102.	1.6	5
58	ANALYSIS OF THE RELEVANCE OF THE FILTERED RADIATIVE TRANSFER EQUATION TERMS FOR LARGE EDDY SIMULATION OF TURBULENCE-RADIATION INTERACTION. , 2008, , .		3
59	The effect of subgrid-scale models on the near wall vortices: A priori tests. <i>Physics of Fluids</i> , 2007, 19, 051702.	1.6	6
60	Analysis of the gradient-diffusion hypothesis in large-eddy simulations based on transport equations. <i>Physics of Fluids</i> , 2007, 19, 035106.	1.6	33
61	Enstrophy, Strain and Scalar Gradient Dynamics across the Turbulent-Nonturbulent Interface in Jets. <i>Springer Proceedings in Physics</i> , 2007, , 639-641.	0.1	1
62	On the modelling of subgrid-scale enstrophy transfer in turbulent channel flows. <i>Springer Proceedings in Physics</i> , 2007, , 734-734.	0.1	0
63	A Non-Linear SGS Model Based On The Spatial Velocity Increment. <i>Theoretical and Computational Fluid Dynamics</i> , 2006, 20, 1-21.	0.9	25
64	On the local equilibrium of the subgrid scales: The velocity and scalar fields. <i>Physics of Fluids</i> , 2005, 17, 108103.	1.6	14
65	The effect of subgrid-scale models on the vortices computed from large-eddy simulations. <i>Physics of Fluids</i> , 2004, 16, 4506-4534.	1.6	33
66	Vortex control of bifurcating jets: A numerical study. <i>Physics of Fluids</i> , 2002, 14, 3798-3819.	1.6	107
67	On the influence of coherent structures upon interscale interactions in turbulent plane jets. <i>Journal of Fluid Mechanics</i> , 2002, 473, 103-145.	1.4	100
68	A New Mixed Model Based on the Velocity Structure Function. <i>Fluid Mechanics and Its Applications</i> , 2002, , 49-64.	0.1	2
69	On the Effect of Coherent Structures on Grid/Subgrid-Scale Interactions in Plane Jets: The Transition and Far Field Regions. <i>Fluid Mechanics and Its Applications</i> , 2002, , 65-80.	0.1	0