

Leonardo Chamorro

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

2,901
citations

218381

26
h-index

182168

51
g-index

104
all docs

104
docs citations

104
times ranked

1832
citing authors

#	ARTICLE	IF	CITATIONS
1	A fast, non-iterative ray-intersection approach for three-dimensional microscale particle tracking. Lab on A Chip, 2022, 22, 964-971.	3.1	3
2	On the turbulence dynamics induced by a surrogate seagrass canopy. Journal of Fluid Mechanics, 2022, 934, .	1.4	7
3	On the dynamics of a model wind turbine under passive tower oscillations. Applied Energy, 2022, 311, 118608.	5.1	14
4	On the design of particle filters inspired by animal noses. Journal of the Royal Society Interface, 2022, 19, 20210849.	1.5	9
5	Dynamics of an oil-coated bubble rising in a quiescent water medium. Physical Review Fluids, 2022, 7, .	1.0	2
6	Characterization of the Flow and Surface Temperature Around Multiple Vortex Generators. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	0.8	0
7	Impact of gaps on the flow statistics in an emergent rigid canopy. Physics of Fluids, 2022, 34, .	1.6	4
8	On the submerged low-Cauchy-number canopy dynamics under unidirectional flows. Journal of Fluids and Structures, 2022, 113, 103646.	1.5	3
9	Exceeding ohmic scaling by more than one order of magnitude with a 3D ion concentration polarization system. Lab on A Chip, 2021, 21, 3094-3104.	3.1	5
10	On the H-type transition to turbulenceâ€”Laboratory experiments and reduced-order modeling. Physics of Fluids, 2021, 33, .	1.6	2
11	On streamwise velocity spectra models with fractal and long-memory effects. Physics of Fluids, 2021, 33, 035116.	1.6	12
12	Automated, multiparametric monitoring of respiratory biomarkers and vital signs in clinical and home settings for COVID-19 patients. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	52
13	On the effect of orifice thickness and divergence angle in the near and intermediate fields of axisymmetric jets. Experimental Thermal and Fluid Science, 2021, 123, 110293.	1.5	7
14	Exploring the effects of low-level-jets on the energy entrainment of vertical-axis wind turbines. Journal of Renewable and Sustainable Energy, 2021, 13, .	0.8	3
15	Fog Formation Related to Gravity Currents Interacting with Coastal Topography. Boundary-Layer Meteorology, 2021, 181, 499.	1.2	5
16	Effect of the aspect ratio on the dynamics of air bubbles within Rayleighâ€”BÃ©nard convection. Physics of Fluids, 2021, 33, .	1.6	2
17	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. Nature, 2021, 597, 503-510.	13.7	120
18	Local topographyâ€”induced pressure gradient effects on the wake and power output of a model wind turbine. Theoretical and Applied Mechanics Letters, 2021, 11, 100297.	1.3	10

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19	On the acoustic fountain types and flow induced with focused ultrasound. <i>Journal of Fluid Mechanics</i> , 2021, 909, .	1.4	8
20	On the Wind Turbine Wake and Forest Terrain Interaction. <i>Energies</i> , 2021, 14, 7204.	1.6	12
21	Interaction of low-level jets with wind turbines: On the basic mechanisms for enhanced performance. <i>Journal of Renewable and Sustainable Energy</i> , 2020, 12, .	0.8	14
22	Performance of fabrics for home-made masks against the spread of COVID-19 through droplets: A quantitative mechanistic study. <i>Extreme Mechanics Letters</i> , 2020, 40, 100924.	2.0	123
23	Impact of Topographic Steps in the Wake and Power of a Wind Turbine: Part Aâ€”Statistics. <i>Energies</i> , 2020, 13, 6411.	1.6	4
24	On the multi-scale turbulent structure interactions within wind farms. <i>Journal of Physics: Conference Series</i> , 2020, 1618, 062052.	0.3	0
25	Wind Turbines with Truncated Blades May Be a Possibility for Dense Wind Farms. <i>Energies</i> , 2020, 13, 1810.	1.6	2
26	On the multiscale oscillations of a hinged plate under stratified coherent motions. <i>Journal of Fluids and Structures</i> , 2020, 94, 102944.	1.5	2
27	On the dynamics of air bubbles in Rayleighâ€”BÃ©nard convection. <i>Journal of Fluid Mechanics</i> , 2020, 891, .	1.4	16
28	In-phase and out-of-phase pitch and roll oscillations of model wind turbines within uniform arrays. <i>Applied Energy</i> , 2020, 269, 114921.	5.1	11
29	On the distinct drag, reconfiguration and wake of perforated structures. <i>Journal of Fluid Mechanics</i> , 2020, 890, .	1.4	12
30	Free fall of homogeneous and heterogeneous cones. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	7
31	On the Unsteady Wake of a Rigid Plate Under Constant Acceleration and Deceleration. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2020, 142, .	0.8	2
32	Wake and power fluctuations of a model wind turbine subjected to pitch and roll oscillations. <i>Applied Energy</i> , 2019, 253, 113605.	5.1	46
33	On the large- and small-scale motions in a separated, turbulent-boundary-layer flow. <i>Journal of Turbulence</i> , 2019, 20, 563-576.	0.5	1
34	Spatiotemporal Correlations in the Power Output of Wind Farms: On the Impact of Atmospheric Stability. <i>Energies</i> , 2019, 12, 1486.	1.6	3
35	Taking a Stab at Quantifying the Energetics of Biological Puncture. <i>Integrative and Comparative Biology</i> , 2019, 59, 1586-1596.	0.9	15
36	Dynamics of flexible plates and flow under impulsive oscillation. <i>Journal of Fluids and Structures</i> , 2019, 87, 319-333.	1.5	3

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37	Exploring wind farms with alternating two- and three-bladed wind turbines. <i>Renewable Energy</i> , 2019, 138, 764-774.	4.3	9
38	Flow-induced motions of flexible plates: fluttering, twisting and orbital modes. <i>Journal of Fluid Mechanics</i> , 2019, 864, 273-285.	1.4	18
39	Active pitching of short splitters past a cylinder: Drag increase and wake. <i>Physical Review E</i> , 2019, 100, 063106.	0.8	4
40	Heat conduction in porcine muscle and blood: experiments and time-fractional telegraph equation model. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190726.	1.5	25
41	Modulation of turbulence scales passing through the rotor of a wind turbine. <i>Journal of Turbulence</i> , 2019, 20, 21-31.	0.5	4
42	Lagrangian description of the unsteady flow induced by a single pulse of a jellyfish. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	9
43	Engineered bio-inspired coating for passive flow control. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 1210-1214.	3.3	23
44	On the Kelvin–Helmholtz and von Kármán vortices in the near-wake of semicircular cylinders with flaps. <i>Journal of Turbulence</i> , 2018, 19, 61-71.	0.5	5
45	On the Dynamics of Flexible Plates under Rotational Motions. <i>Energies</i> , 2018, 11, 3384.	1.6	3
46	On the Evolution of the Integral Time Scale within Wind Farms. <i>Energies</i> , 2018, 11, 93.	1.6	23
47	Turbulence coherence and its impact on wind-farm power fluctuations. <i>Journal of Fluid Mechanics</i> , 2018, 855, 1116-1129.	1.4	12
48	Flow-induced oscillations of low-aspect-ratio flexible plates with various tip geometries. <i>Physics of Fluids</i> , 2018, 30, 097102.	1.6	22
49	Turbulence-driven reverse lift on two-dimensional and three-dimensional structures. <i>Physical Review E</i> , 2018, 98, .	0.8	4
50	Flow modulation by a mushroom-like coating around the separation region of a wind-turbine airfoil section. <i>Journal of Renewable and Sustainable Energy</i> , 2018, 10, .	0.8	5
51	On the couple dynamics of wall-mounted flexible plates in tandem. <i>Journal of Fluid Mechanics</i> , 2018, 852, .	1.4	20
52	Turbulent boundary layer around 2D permeable and impermeable obstacles. <i>Experiments in Fluids</i> , 2018, 59, 1.	1.1	4
53	Wakes behind surface-mounted obstacles: Impact of aspect ratio, incident angle, and surface roughness. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	4
54	Instability-driven frequency decoupling between structure dynamics and wake fluctuations. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	12

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55	Lagrangian acceleration in Rayleigh-Bénard convection at various aspect ratios. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	11
56	Impact of height heterogeneity on canopy turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 813, 1176-1196.	1.4	44
57	Flow around a semicircular cylinder with passive flow control mechanisms. <i>Experiments in Fluids</i> , 2017, 58, 1.	1.1	14
58	Influence of vortical structure impingement on the oscillation and rotation of flat plates. <i>Journal of Fluids and Structures</i> , 2017, 70, 417-427.	1.5	13
59	Fractional Flow Speed-Up from Porous Windbreaks for Enhanced Wind-Turbine Power. <i>Boundary-Layer Meteorology</i> , 2017, 163, 253-271.	1.2	24
60	On the dynamics of three-dimensional slung prisms under very low and high turbulence flows. <i>Journal of Fluid Mechanics</i> , 2017, 816, 468-480.	1.4	4
61	Modulation of aerodynamic force on a 2D elliptic body via passive splitter pitching under high turbulence. <i>Journal of Fluids and Structures</i> , 2017, 74, 205-213.	1.5	7
62	Vortical structures in the near wake of tabs with various geometries. <i>Journal of Fluid Mechanics</i> , 2017, 825, 167-188.	1.4	21
63	Turbulent boundary layer response to large-scale wavy topographies. <i>Physics of Fluids</i> , 2017, 29, 065113.	1.6	8
64	Passive pitching of splitters in the trailing edge of elliptic cylinders. <i>Journal of Fluid Mechanics</i> , 2017, 826, 363-375.	1.4	8
65	Characterisation of the Eulerian and Lagrangian accelerations in the intermediate field of turbulent circular jets. <i>Journal of Turbulence</i> , 2017, 18, 87-102.	0.5	1
66	Towards uncovering the structure of power fluctuations of wind farms. <i>Physical Review E</i> , 2017, 96, 063117.	0.8	28
67	Windbreak Effects Within Infinite Wind Farms. <i>Energies</i> , 2017, 10, 1140.	1.6	8
68	Effects of Freestream Turbulence in a Model Wind Turbine Wake. <i>Energies</i> , 2016, 9, 830.	1.6	39
69	Experimental and Numerical Visualization of Counter Rotating Vortices. <i>Journal of Heat Transfer</i> , 2016, 138, .	1.2	3
70	Transition to turbulence over 2D and 3D periodic large-scale roughnesses. <i>Journal of Fluid Mechanics</i> , 2016, 804, .	1.4	11
71	Spectral energy cascade of body rotations and oscillations under turbulence. <i>Physical Review E</i> , 2016, 94, 063105.	0.8	18
72	On the near-wall effects induced by an axial-flow rotor. <i>Renewable Energy</i> , 2016, 91, 524-530.	4.3	6

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73	Three-dimensional Particle Tracking Velocimetry for Turbulence Applications: Case of a Jet Flow. <i>Journal of Visualized Experiments</i> , 2016, , 53745.	0.2	14
74	A Comparative Analysis on the Response of a Wind-Turbine Model to Atmospheric and Terrain Effects. <i>Boundary-Layer Meteorology</i> , 2016, 158, 229-255.	1.2	21
75	Turbulent boundary layer over 2D and 3D large-scale wavy walls. <i>Physics of Fluids</i> , 2015, 27, .	1.6	29
76	On the transient dynamics of the wake and trajectory of free falling cones with various apex angles. <i>Experiments in Fluids</i> , 2015, 56, 1.	1.1	12
77	An Experimental Study on the Effects ofWinglets on the Wake and Performance of a ModelWind Turbine. <i>Energies</i> , 2015, 8, 11955-11972.	1.6	46
78	Detection of tip-vortex signatures behind a 2.5 MW wind turbine. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015, 143, 105-112.	1.7	16
79	Effects of energetic coherent motions on the power and wake of an axial-flow turbine. <i>Physics of Fluids</i> , 2015, 27, .	1.6	37
80	Spectral behaviour of the turbulence-driven power fluctuations of wind turbines. <i>Journal of Turbulence</i> , 2015, 16, 832-846.	0.5	47
81	Characterizing the response of a wind turbine model under complex inflow conditions. <i>Wind Energy</i> , 2015, 18, 729-743.	1.9	48
82	On the scale-to-scale coupling between a full-scale wind turbine and turbulence. <i>Journal of Turbulence</i> , 2015, 16, 617-632.	0.5	7
83	Turbulence effects on a full-scale 2.5-MW horizontal-axis wind turbine under neutrally stratified conditions. <i>Wind Energy</i> , 2015, 18, 339-349.	1.9	75
84	Local Scour around a Model Hydrokinetic Turbine in an Erodible Channel. <i>Journal of Hydraulic Engineering</i> , 2014, 140, .	0.7	44
85	Variable-sized wind turbines are a possibility for wind farm optimization. <i>Wind Energy</i> , 2014, 17, 1483-1494.	1.9	27
86	Natural snowfall reveals large-scale flow structures in the wake of a 2.5-MW wind turbine. <i>Nature Communications</i> , 2014, 5, 4216.	5.8	99
87	Non-uniform velocity distribution effect on the Betz-Joukowski limit. <i>Wind Energy</i> , 2013, 16, 279-282.	1.9	15
88	Three-dimensional flow visualization in the wake of a miniature axial-flow hydrokinetic turbine. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	39
89	On the interaction between a turbulent open channel flow and an axial-flow turbine. <i>Journal of Fluid Mechanics</i> , 2013, 716, 658-670.	1.4	183
90	Near and far field flow disturbances induced by model hydrokinetic turbine: ADV and ADP comparison. <i>Renewable Energy</i> , 2013, 60, 1-6.	4.3	49

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91	Drag reduction of large wind turbine blades through riblets: Evaluation of riblet geometry and application strategies. <i>Renewable Energy</i> , 2013, 50, 1095-1105.	4.3	85
92	On the evolution of turbulent scales in the wake of a wind turbine model. <i>Journal of Turbulence</i> , 2012, 13, N27.	0.5	58
93	Turbulent Flow Properties Around a Staggered Wind Farm. <i>Boundary-Layer Meteorology</i> , 2011, 141, 349-367.	1.2	96
94	Turbulent Flow Inside and Above a Wind Farm: A Wind-Tunnel Study. <i>Energies</i> , 2011, 4, 1916-1936.	1.6	142
95	Effects of Thermal Stability and Incoming Boundary-Layer Flow Characteristics on Wind-Turbine Wakes: A Wind-Tunnel Study. <i>Boundary-Layer Meteorology</i> , 2010, 136, 515-533.	1.2	223
96	Wind-tunnel study of surface boundary conditions for large-eddy simulation of turbulent flow past a rough-to-smooth surface transition. <i>Journal of Turbulence</i> , 2010, 11, N1.	0.5	32
97	Channel Bed Slope Effect on the Height of Gravity Waves Produced by a Sudden Downstream Discharge Stoppage. <i>Journal of Hydraulic Engineering</i> , 2010, 136, 328-330.	0.7	1
98	Velocity and Surface Shear Stress Distributions Behind a Rough-to-Smooth Surface Transition: A Simple New Model. <i>Boundary-Layer Meteorology</i> , 2009, 130, 29-41.	1.2	43
99	A Wind-Tunnel Investigation of Wind-Turbine Wakes: Boundary-Layer Turbulence Effects. <i>Boundary-Layer Meteorology</i> , 2009, 132, 129-149.	1.2	393
100	Bacterias endófitas promotoras de crecimiento aisladas de pasto colosoana, departamento de Sucre, Colombia. <i>Revista MVZ Cordoba</i> , 0, , 6696-6709.	0.2	0
101	On the large-scale streaks in the logarithmic layer of wall-bounded flows. <i>Journal of Visualization</i> , 0, , 1.	1.1	1
102	On the impact of layout in the dynamics of wind turbine arrays under passive oscillations. <i>Journal of Renewable and Sustainable Energy</i> , 0, , .	0.8	3
103	Spectral features of the wake and power fluctuations of model wind turbines under low-level jets. <i>Journal of Renewable and Sustainable Energy</i> , 0, , .	0.8	1