

Paul F Linden

List of Publications by Year in descending order

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147
papers

7,972
citations

66234

42
h-index

53109

85
g-index

151
all docs

151
docs citations

151
times ranked

4223
citing authors

#	ARTICLE	IF	CITATIONS
1	Predictive and retrospective modelling of airborne infection risk using monitored carbon dioxide. Indoor and Built Environment, 2022, 31, 1363-1380.	1.5	35
2	Fluid mechanics of sash windows. Flow, 2022, 2, .	1.0	1
3	Experimental properties of continuously forced, shear-driven, stratified turbulence. Part 2. Energetics, anisotropy, parameterisation. Journal of Fluid Mechanics, 2022, 937, .	1.4	8
4	Experimental properties of continuously forced, shear-driven, stratified turbulence. Part 1. Mean flows, self-organisation, turbulent fractions. Journal of Fluid Mechanics, 2022, 937, .	1.4	8
5	Bubble curtains used as barriers across horizontal density stratifications. Journal of Fluid Mechanics, 2022, 941, .	1.4	2
6	Modeling disease transmission in a train carriage using a simple 1D model. Indoor Air, 2022, 32, .	2.0	3
7	The circular hydraulic jump; the influence of downstream flow on the jump radius. Physics of Fluids, 2022, 34, .	1.6	5
8	Vertically distributed wall sources of buoyancy. Part 2. Unventilated and ventilated confined spaces. Journal of Fluid Mechanics, 2021, 907, .	1.4	2
9	A full-scale field study for evaluation of simple analytical models of cross ventilation and single-sided ventilation. Building and Environment, 2021, 187, 107386.	3.0	16
10	Identifying Efficient Transport Pathways in Early-Wood Timber: Insights from 3D X-ray CT Imaging of Softwood in the Presence of Flow. Transport in Porous Media, 2021, 136, 813-830.	1.2	0
11	Data Assimilation in the Latent Space of a Convolutional Autoencoder. Lecture Notes in Computer Science, 2021, , 373-386.	1.0	9
12	Confronting Grand Challenges in environmental fluid mechanics. Physical Review Fluids, 2021, 6, .	1.0	37
13	The ventilation of buildings and other mitigating measures for COVID-19: a focus on wintertime. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200855.	1.0	47
14	Seasonal variation in airborne infection risk in schools due to changes in ventilation inferred from monitored carbon dioxide. Indoor Air, 2021, 31, 1154-1163.	2.0	44
15	Effects of background rotation on the dynamics of multiphase plumes. Journal of Fluid Mechanics, 2021, 915, .	1.4	2
16	A metamorphosis of three-dimensional wave structure in transitional and turbulent boundary layers. Journal of Fluid Mechanics, 2021, 914, .	1.4	10
17	Numerical study of COVID-19 spatial-temporal spreading in London. Physics of Fluids, 2021, 33, 046605.	1.6	16
18	Contaminant transport by human passage through an air curtain separating two sections of a corridor: Part I – Uniform ambient temperature. Energy and Buildings, 2021, 236, 110818.	3.1	6

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19	Assessment and mitigation of personal exposure to particulate air pollution in cities: An exploratory study. <i>Sustainable Cities and Society</i> , 2021, 72, 103052.	5.1	19
20	Natural ventilation in London: Towards energy-efficient and healthy buildings. <i>Building and Environment</i> , 2021, 195, 107722.	3.0	31
21	Transpiration through hydrogels. <i>Journal of Fluid Mechanics</i> , 2021, 925, .	1.4	9
22	Plumes in rotating fluid and their transformation into tornados. <i>Journal of Fluid Mechanics</i> , 2021, 924, .	1.4	5
23	Air Flow Experiments on a Train Carriage – Towards Understanding the Risk of Airborne Transmission. <i>Atmosphere</i> , 2021, 12, 1267.	1.0	12
24	Vertically distributed wall sources of buoyancy. Part 1. Unconfined. <i>Journal of Fluid Mechanics</i> , 2021, 907, .	1.4	6
25	The effect of an indoor-outdoor temperature difference on transient cross-ventilation. <i>Building and Environment</i> , 2020, 168, 106447.	3.0	18
26	A comparison of entrainment in turbulent line plumes adjacent to and distant from a vertical wall. <i>Journal of Fluid Mechanics</i> , 2020, 882, .	1.4	18
27	The effect of double diffusion on entrainment in turbulent plumes. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	1.4	6
28	Effects of ventilation on the indoor spread of COVID-19. <i>Journal of Fluid Mechanics</i> , 2020, 903, F1.	1.4	283
29	Displacement ventilation: a viable ventilation strategy for makeshift hospitals and public buildings to contain COVID-19 and other airborne diseases. <i>Royal Society Open Science</i> , 2020, 7, 200680.	1.1	42
30	Experimental study on low-speed streaks in a turbulent boundary layer at low Reynolds number. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	1.4	17
31	The effect of double diffusion on the dynamics of horizontal turbulent thermohaline jets. <i>Journal of Fluid Mechanics</i> , 2020, 905, .	1.4	7
32	The circular capillary jump. <i>Journal of Fluid Mechanics</i> , 2020, 896, .	1.4	15
33	Structure evolution at early stage of boundary-layer transition: simulation and experiment. <i>Journal of Fluid Mechanics</i> , 2020, 890, .	1.4	27
34	Buoyancy-driven exchange flows in inclined ducts. <i>Journal of Fluid Mechanics</i> , 2020, 893, .	1.4	14
35	Regime transitions and energetics of sustained stratified shear flows. <i>Journal of Fluid Mechanics</i> , 2019, 875, 657-698.	1.4	14
36	Testing the Assumptions Underlying Ocean Mixing Methodologies Using Direct Numerical Simulations. <i>Journal of Physical Oceanography</i> , 2019, 49, 2761-2779.	0.7	19

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37	The transport of liquids in softwood: timber as a model porous medium. <i>Scientific Reports</i> , 2019, 9, 20282.	1.6	6
38	Experimental exploration of fluid-driven cracks in brittle hydrogels. <i>Journal of Fluid Mechanics</i> , 2018, 844, 435-458.	1.4	13
39	Detrainment of plumes from vertically distributed sources. <i>Environmental Fluid Mechanics</i> , 2018, 18, 3-25.	0.7	13
40	Symmetric coalescence of two hydraulic fractures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10228-10232.	3.3	5
41	Cell geometry across the ring structure of Sitka spruce. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180144.	1.5	9
42	Natural ventilation in cities: the implications of fluid mechanics. <i>Building Research and Information</i> , 2018, 46, 809-828.	2.0	32
43	On the origin of the circular hydraulic jump in a thin liquid film. <i>Journal of Fluid Mechanics</i> , 2018, 851, .	1.4	52
44	Flow of buoyant granular materials along a free surface. <i>Journal of Fluid Mechanics</i> , 2018, 848, 312-339.	1.4	3
45	The structure and origin of confined Holmboe waves. <i>Journal of Fluid Mechanics</i> , 2018, 848, 508-544.	1.4	36
46	Characteristics of colliding sea breeze gravity current fronts: a laboratory study. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 1434-1441.	1.0	16
47	Diapycnal mixing in layered stratified plane Couette flow quantified in a tracer-based coordinate. <i>Journal of Fluid Mechanics</i> , 2017, 823, 198-229.	1.4	30
48	Conditional sampling of a high Péclet number turbulent plume and the implications for entrainment. <i>Journal of Fluid Mechanics</i> , 2017, 823, 26-56.	1.4	17
49	Hydrogel as a Medium for Fluid-Driven Fracture Study. <i>Experimental Mechanics</i> , 2017, 57, 1483-1493.	1.1	7
50	Anticyclonic precession of a plume in a rotating environment. <i>Geophysical Research Letters</i> , 2017, 44, 9400-9407.	1.5	12
51	Predicting the pore-filling ratio in lumen-impregnated wood. <i>Wood Science and Technology</i> , 2017, 51, 1277-1290.	1.4	18
52	The wood from the trees: The use of timber in construction. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 68, 333-359.	8.2	721
53	Questioning the Mpemba effect: hot water does not cool more quickly than cold. <i>Scientific Reports</i> , 2016, 6, 37665.	1.6	42
54	Mixing efficiency in run-down gravity currents. <i>Journal of Fluid Mechanics</i> , 2016, 809, 691-704.	1.4	12

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55	Impact of aperture separation on wind-driven single-sided natural ventilation. <i>Building and Environment</i> , 2016, 108, 122-134.	3.0	41
56	The Fluxes and Behaviour of Plumes Inferred from Measurements of Coherent Structures within Images of the Bulk Flow. <i>Atmosphere - Ocean</i> , 2016, 54, 403-417.	0.6	9
57	The Modular Aerial Sensing System. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016, 33, 1169-1184.	0.5	33
58	The effects of an opposing buoyancy force on the performance of an air curtain in the doorway of a building. <i>Energy and Buildings</i> , 2015, 96, 20-29.	3.1	33
59	Gravity current propagation up a valley. <i>Journal of Fluid Mechanics</i> , 2015, 762, 417-434.	1.4	16
60	Intrusion-generated waves in a linearly stratified fluid. <i>Journal of Fluid Mechanics</i> , 2014, 752, 282-295.	1.4	8
61	Stratified shear flow: experiments in an inclined duct. <i>Journal of Fluid Mechanics</i> , 2014, 753, 242-253.	1.4	27
62	Entrainment in two coalescing axisymmetric turbulent plumes. <i>Journal of Fluid Mechanics</i> , 2014, 752, .	1.4	30
63	The effectiveness of an air curtain in the doorway of a ventilated building. <i>Journal of Fluid Mechanics</i> , 2014, 756, 130-164.	1.4	37
64	Validity of thermally-driven small-scale ventilated filling box models. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	11
65	The efficiency of pulsed-jet propulsion. <i>Journal of Fluid Mechanics</i> , 2011, 668, 1-4.	1.4	12
66	Geophysical and Environmental Fluid Dynamics. Lecture Notes Series, Institute for Mathematical Sciences, 2011, , 29-62.	0.2	0
67	Intrusive gravity currents between two stably stratified fluids. <i>Journal of Fluid Mechanics</i> , 2010, 647, 53-69.	1.4	22
68	Laboratory modelling of the effects of temporal changes of estuarine-fresh-water discharge rates on the propagation speed of oceanographic coastal currents. <i>Journal of Fluid Mechanics</i> , 2010, 664, 337-347.	1.4	1
69	Particle transport in low-energy ventilation systems. Part 1: theory of steady states. <i>Indoor Air</i> , 2009, 19, 122-129.	2.0	12
70	The front speed of intrusions into a continuously stratified medium. <i>Journal of Fluid Mechanics</i> , 2008, 594, 369-377.	1.4	29
71	Buoyancy-driven flow between two rooms coupled by two openings at different levels. <i>Journal of Fluid Mechanics</i> , 2008, 594, 425-443.	1.4	5
72	Contaminants in ventilated filling boxes. <i>Journal of Fluid Mechanics</i> , 2007, 591, 97-116.	1.4	35

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73	Rotating gravity currents: small-scale and large-scale laboratory experiments and a geostrophic model. <i>Journal of Fluid Mechanics</i> , 2007, 578, 35-65.	1.4	28
74	Lock-exchange flows in sloping channels. <i>Journal of Fluid Mechanics</i> , 2007, 577, 53-77.	1.4	60
75	Local implications for self-similar turbulent plume models. <i>Journal of Fluid Mechanics</i> , 2007, 575, 257-265.	1.4	11
76	Intrusive gravity currents. <i>Journal of Fluid Mechanics</i> , 2006, 568, 193.	1.4	34
77	Axisymmetric gravity currents on a cone. <i>Journal of Fluid Mechanics</i> , 2006, 565, 227.	1.4	22
78	The fluid dynamics of an underfloor air distribution system. <i>Journal of Fluid Mechanics</i> , 2006, 554, 323.	1.4	42
79	The front speed of intrusive gravity currents. <i>Journal of Fluid Mechanics</i> , 2006, 552, 1.	1.4	37
80	Colliding turbulent plumes. <i>Journal of Fluid Mechanics</i> , 2006, 550, 85.	1.4	8
81	Interacting Turbulent Plumes in a Naturally Ventilated Enclosure. <i>International Journal of Ventilation</i> , 2006, 4, 301-310.	0.2	16
82	The entrainment due to a turbulent fountain at a density interface. <i>Journal of Fluid Mechanics</i> , 2005, 542, 25.	1.4	44
83	The non-Boussinesq lock-exchange problem. Part 1. Theory and experiments. <i>Journal of Fluid Mechanics</i> , 2005, 537, 101.	1.4	108
84	The front condition for gravity currents. <i>Journal of Fluid Mechanics</i> , 2005, 536, 49-78.	1.4	133
85	Displacement and mixing ventilation driven by opposing wind and buoyancy. <i>Journal of Fluid Mechanics</i> , 2005, 527, 27-55.	1.4	66
86	“Optimal” vortex rings and aquatic propulsion mechanisms. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2004, 271, 647-653.	1.2	85
87	Gravity currents produced by lock exchange. <i>Journal of Fluid Mechanics</i> , 2004, 521, 1-34.	1.4	337
88	Lock-release inertial gravity currents over a thick porous layer. <i>Journal of Fluid Mechanics</i> , 2004, 503, 299-319.	1.4	23
89	Coalescing axisymmetric turbulent plumes. <i>Journal of Fluid Mechanics</i> , 2004, 502, 41-63.	1.4	84
90	The drag on a vertically moving grid of bars in a linearly stratified fluid. <i>Experiments in Fluids</i> , 2003, 34, 678-686.	1.1	14

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91	Buoyancy-driven ventilation between two chambers. <i>Journal of Fluid Mechanics</i> , 2002, 463, 293-312.	1.4	39
92	Eigenmode resonance in a two-layer stratification. <i>Journal of Fluid Mechanics</i> , 2002, 460, 223-240.	1.4	1
93	Gravity currents in rotating channels. Part 1. Steady-state theory. <i>Journal of Fluid Mechanics</i> , 2002, 457, 295-324.	1.4	13
94	A laboratory study of the velocity structure in an intrusive gravity current. <i>Journal of Fluid Mechanics</i> , 2002, 456, 33-48.	1.4	63
95	A study of three-dimensional gravity currents on a uniform slope. <i>Journal of Fluid Mechanics</i> , 2002, 453, 239-261.	1.4	50
96	Stability of a buoyancy-driven coastal current at the shelf break. <i>Journal of Fluid Mechanics</i> , 2002, 452, 97-121.	1.4	23
97	Internal wave excitation by a vertically oscillating elliptical cylinder. <i>Physics of Fluids</i> , 2002, 14, 721-731.	1.6	47
98	Sensitivity of horizontal flows to forcing geometry. <i>Journal of Fluid Mechanics</i> , 2001, 432, 419-441.	1.4	1
99	The formation of "optimal" vortex rings, and the efficiency of propulsion devices. <i>Journal of Fluid Mechanics</i> , 2001, 427, 61-72.	1.4	134
100	Steady-state flows in an enclosure ventilated by buoyancy forces assisted by wind. <i>Journal of Fluid Mechanics</i> , 2001, 426, 355-386.	1.4	103
101	Self-similarity and internal structure of turbulence induced by Rayleigh-Taylor instability. <i>Journal of Fluid Mechanics</i> , 1999, 399, 1-48.	1.4	210
102	Saline and particle-driven interfacial intrusions. <i>Journal of Fluid Mechanics</i> , 1999, 389, 303-334.	1.4	35
103	Visualization and measurement of internal waves by "synthetic schlieren". Part 1. Vertically oscillating cylinder. <i>Journal of Fluid Mechanics</i> , 1999, 390, 93-126.	1.4	155
104	THE FLUID MECHANICS OF NATURAL VENTILATION. <i>Annual Review of Fluid Mechanics</i> , 1999, 31, 201-238.	10.8	536
105	Experimental investigations of quasi-two-dimensional vortices in a stratified fluid with source-sink forcing. <i>Journal of Fluid Mechanics</i> , 1999, 383, 249-283.	1.4	10
106	Internal wave excitation from stratified flow over a thin barrier. <i>Journal of Fluid Mechanics</i> , 1998, 377, 223-252.	1.4	69
107	Gravity currents over porous substrates. <i>Journal of Fluid Mechanics</i> , 1998, 366, 239-258.	1.4	32
108	Mixing processes in a highly stratified river. <i>Coastal and Estuarine Studies</i> , 1998, , 389-400.	0.4	20

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109	Report on Turbulence and Mixing in Geophysical Flows II. Flow, Turbulence and Combustion, 1997, 59, 89-110.	0.2	1
110	Similarity considerations for non-Boussinesq plumes in an unstratified environment. Journal of Fluid Mechanics, 1996, 318, 237.	1.4	97
111	Natural ventilation of an enclosure containing two buoyancy sources. Journal of Fluid Mechanics, 1996, 311, 153.	1.4	71
112	Multiple sources of buoyancy in a naturally ventilated enclosure. Journal of Fluid Mechanics, 1996, 311, 177.	1.4	76
113	A laboratory simulation of mixing across tidal fronts. Journal of Fluid Mechanics, 1996, 309, 321-344.	1.4	10
114	Source-sink turbulence in a rotating stratified fluid. Journal of Fluid Mechanics, 1995, 298, 81-112.	1.4	30
115	Molecular mixing in Rayleigh-Taylor instability. Journal of Fluid Mechanics, 1994, 265, 97-124.	1.4	134
116	Source-sink turbulence in a stratified fluid. Journal of Fluid Mechanics, 1994, 261, 273-303.	1.4	19
117	Forced, angled plumes. Journal of Hazardous Materials, 1993, 33, 75-99.	6.5	48
118	Spin-up of a two-layer fluid in a rotating cylinder. Geophysical and Astrophysical Fluid Dynamics, 1992, 66, 47-66.	0.4	2
119	Free-surface effects on the spin-up of fluid in a rotating cylinder. Journal of Fluid Mechanics, 1991, 232, 439.	1.4	9
120	Molecular mixing in Rayleigh-Taylor instability. Part I: Global mixing. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1269-1277.	1.6	60
121	Emptying filling boxes: the fluid mechanics of natural ventilation. Journal of Fluid Mechanics, 1990, 212, 309.	1.4	372
122	The effect of background rotation on fluid motions: a report on Euromech 245. Journal of Fluid Mechanics, 1990, 211, 417-435.	1.4	25
123	Frontogenesis in a fluid with horizontal density gradients. Journal of Fluid Mechanics, 1989, 202, 1-16.	1.4	72
124	Gravity-driven flows in a turbulent fluid. Journal of Fluid Mechanics, 1986, 172, 481.	1.4	119
125	Intermittent baroclinic instability and fluctuations in geophysical circulations. Nature, 1985, 316, 801-803.	13.7	11
126	Microbursts: a hazard for aircraft. Nature, 1985, 317, 601-602.	13.7	21

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127	Two-layer spin-up and frontogenesis. <i>Journal of Fluid Mechanics</i> , 1984, 143, 69-94.	1.4	34
128	The final stage of decay of turbulence in stably stratified fluid. <i>Journal of Fluid Mechanics</i> , 1983, 134, 195.	1.4	39
129	Topographic instability and multiple equilibria on an f-plane. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1983, 27, 163-182.	0.4	1
130	Benthic fronts and global excess radon distribution. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1983, 25, 309-315.	0.4	4
131	Laboratory experiments on fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1982, 19, 159-187.	0.4	110
132	Formation of thermoclines in zero-mean-shear turbulence subjected to a stabilizing buoyancy flux. <i>Journal of Fluid Mechanics</i> , 1982, 114, 157.	1.4	47
133	Laboratory experiments on fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1982, 19, 189-206.	0.4	42
134	The stability of vortices in a rotating, stratified fluid. <i>Journal of Fluid Mechanics</i> , 1981, 105, 283.	1.4	175
135	Physical oceanography of the European shelf-seas: A report on the geophysical fluid mechanics symposium of the E.G.S. (1980). <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1981, 17, 319-329.	0.4	0
136	The motion of the front of a gravity current travelling down an incline. <i>Journal of Fluid Mechanics</i> , 1980, 99, 531-543.	1.4	267
137	Mixing in stratified fluids. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1979, 13, 3-23.	0.4	195
138	On heating a stable salinity gradient from below. <i>Journal of Fluid Mechanics</i> , 1979, 95, 431.	1.4	153
139	The diffusive interface in double-diffusive convection. <i>Journal of Fluid Mechanics</i> , 1978, 87, 417.	1.4	139
140	The formation of layers in a double-diffusive system with a sloping boundary. <i>Journal of Fluid Mechanics</i> , 1977, 81, 757-773.	1.4	53
141	The flow of a stratified fluid in a rotating annulus. <i>Journal of Fluid Mechanics</i> , 1977, 79, 435-447.	1.4	13
142	The deepening of a mixed layer in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 1975, 71, 385-405.	1.4	166
143	Small-scale mixing in stably stratified fluids: a report on Euromech 51. <i>Journal of Fluid Mechanics</i> , 1975, 67, 1-16.	1.4	8
144	The structure of turbulent density interfaces. <i>Journal of Fluid Mechanics</i> , 1974, 65, 45-63.	1.4	85

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145	Salt fingers in a steady shear flow. <i>Geophysical Fluid Dynamics</i> , 1974, 6, 1-27.	0.4	130
146	The interaction of a vortex ring with a sharp density interface: a model for turbulent entrainment. <i>Journal of Fluid Mechanics</i> , 1973, 60, 467.	1.4	167
147	Salt fingers in the presence of grid-generated turbulence. <i>Journal of Fluid Mechanics</i> , 1971, 49, 611.	1.4	55