

# Paul F Linden

## List of Publications by Citations

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141  
papers

6,029  
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39  
h-index

75  
g-index

151  
ext. papers

6,960  
ext. citations

4.6  
avg, IF

6.06  
L-index

#	Paper	IF	Citations
141	THE FLUID MECHANICS OF NATURAL VENTILATION. <i>Annual Review of Fluid Mechanics</i> , <b>1999</b> , 31, 201-238	3.2	444
140	The wood from the trees: The use of timber in construction. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 68, 333-359	16.2	424
139	Emptying filling boxes: the fluid mechanics of natural ventilation. <i>Journal of Fluid Mechanics</i> , <b>1990</b> , 212, 309	3.7	303
138	Gravity currents produced by lock exchange. <i>Journal of Fluid Mechanics</i> , <b>2004</b> , 521, 1-34	3.7	275
137	The motion of the front of a gravity current travelling down an incline. <i>Journal of Fluid Mechanics</i> , <b>1980</b> , 99, 531-543	3.7	226
136	Self-similarity and internal structure of turbulence induced by Rayleigh-Taylor instability. <i>Journal of Fluid Mechanics</i> , <b>1999</b> , 399, 1-48	3.7	180
135	Mixing in stratified fluids. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1979</b> , 13, 3-23	1.4	169
134	The stability of vortices in a rotating, stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>1981</b> , 105, 283	3.7	150
133	The deepening of a mixed layer in a stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>1975</b> , 71, 385-405	3.7	137
132	The interaction of a vortex ring with a sharp density interface: a model for turbulent entrainment. <i>Journal of Fluid Mechanics</i> , <b>1973</b> , 60, 467	3.7	137
131	On heating a stable salinity gradient from below. <i>Journal of Fluid Mechanics</i> , <b>1979</b> , 95, 431	3.7	133
130	Visualization and measurement of internal waves by synthetic schlieren-Part 1. Vertically oscillating cylinder. <i>Journal of Fluid Mechanics</i> , <b>1999</b> , 390, 93-126	3.7	127
129	Effects of ventilation on the indoor spread of COVID-19. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 903, F1	3.7	127
128	The diffusive interface in double-diffusive convection. <i>Journal of Fluid Mechanics</i> , <b>1978</b> , 87, 417	3.7	117
127	The formation of optimal vortex rings, and the efficiency of propulsion devices. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 427, 61-72	3.7	112
126	Molecular mixing in Rayleigh-Taylor instability. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 265, 97-124	3.7	112
125	Laboratory experiments on fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1982</b> , 19, 159-187	1.4	107

124	The front condition for gravity currents. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 536, 49-78	3.7	106
123	Salt fingers in a steady shear flow. <i>Geophysical Fluid Dynamics</i> , <b>1974</b> , 6, 1-27		102
122	Gravity-driven flows in a turbulent fluid. <i>Journal of Fluid Mechanics</i> , <b>1986</b> , 172, 481	3.7	100
121	Steady-state flows in an enclosure ventilated by buoyancy forces assisted by wind. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 426, 355-386	3.7	86
120	The non-Boussinesq lock-exchange problem. Part 1. Theory and experiments. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 537, 101	3.7	85
119	Similarity considerations for non-Boussinesq plumes in an unstratified environment. <i>Journal of Fluid Mechanics</i> , <b>1996</b> , 318, 237	3.7	80
118	The structure of turbulent density interfaces. <i>Journal of Fluid Mechanics</i> , <b>1974</b> , 65, 45-63	3.7	80
117	Coalescing axisymmetric turbulent plumes. <i>Journal of Fluid Mechanics</i> , <b>2004</b> , 502, 41-63	3.7	71
116	'Optimal' vortex rings and aquatic propulsion mechanisms. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2004</b> , 271, 647-53	4.4	69
115	Frontogenesis in a fluid with horizontal density gradients. <i>Journal of Fluid Mechanics</i> , <b>1989</b> , 202, 1-16	3.7	65
114	Multiple sources of buoyancy in a naturally ventilated enclosure. <i>Journal of Fluid Mechanics</i> , <b>1996</b> , 311, 177	3.7	61
113	Internal wave excitation from stratified flow over a thin barrier. <i>Journal of Fluid Mechanics</i> , <b>1998</b> , 377, 223-252	3.7	59
112	Natural ventilation of an enclosure containing two buoyancy sources. <i>Journal of Fluid Mechanics</i> , <b>1996</b> , 311, 153	3.7	59
111	Lock-exchange flows in sloping channels. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 577, 53-77	3.7	53
110	Molecular mixing in Rayleigh-Taylor instability. Part I: Global mixing. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1991</b> , 3, 1269-1277		53
109	Displacement and mixing ventilation driven by opposing wind and buoyancy. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 527, 27-55	3.7	52
108	A laboratory study of the velocity structure in an intrusive gravity current. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 456, 33-48	3.7	52
107	The formation of layers in a double-diffusive system with a sloping boundary. <i>Journal of Fluid Mechanics</i> , <b>1977</b> , 81, 757-773	3.7	48

106	Salt fingers in the presence of grid-generated turbulence. <i>Journal of Fluid Mechanics</i> , <b>1971</b> , 49, 611	3.7	44
105	A study of three-dimensional gravity currents on a uniform slope. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 453, 239-261	3.7	43
104	Forced, angled plumes. <i>Journal of Hazardous Materials</i> , <b>1993</b> , 33, 75-99	12.8	43
103	Internal wave excitation by a vertically oscillating elliptical cylinder. <i>Physics of Fluids</i> , <b>2002</b> , 14, 721-731	4.4	41
102	Formation of thermoclines in zero-mean-shear turbulence subjected to a stabilizing buoyancy flux. <i>Journal of Fluid Mechanics</i> , <b>1982</b> , 114, 157	3.7	39
101	The entrainment due to a turbulent fountain at a density interface. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 542, 25	3.7	37
100	The final stage of decay of turbulence in stably stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>1983</b> , 134, 195	3.7	35
99	The fluid dynamics of an underfloor air distribution system. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 554, 323	3.7	34
98	Buoyancy-driven ventilation between two chambers. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 463, 293-312	3.7	34
97	Two-layer spin-up and frontogenesis. <i>Journal of Fluid Mechanics</i> , <b>1984</b> , 143, 69-94	3.7	33
96	Laboratory experiments on fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1982</b> , 19, 189-206	1.4	33
95	The front speed of intrusive gravity currents. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 552, 1	3.7	31
94	Saline and particle-driven interfacial intrusions. <i>Journal of Fluid Mechanics</i> , <b>1999</b> , 389, 303-334	3.7	31
93	On the origin of the circular hydraulic jump in a thin liquid film. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 851,	3.7	30
92	Intrusive gravity currents. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 568, 193	3.7	30
91	Contaminants in ventilated filling boxes. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 591, 97-116	3.7	29
90	Impact of aperture separation on wind-driven single-sided natural ventilation. <i>Building and Environment</i> , <b>2016</b> , 108, 122-134	6.5	28
89	Source-sink turbulence in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>1995</b> , 298, 81-112	3.7	27

88	The ventilation of buildings and other mitigating measures for COVID-19: a focus on wintertime.. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2021</b> , 477, 20200855 <sup>2.4</sup>	2.4	26
87	Questioning the Mpemba effect: hot water does not cool more quickly than cold. <i>Scientific Reports</i> , <b>2016</b> , 6, 37665	4.9	26
86	The Modular Aerial Sensing System. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2016</b> , 33, 1169-1184		25
85	The front speed of intrusions into a continuously stratified medium. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 594, 369-377	3.7	25
84	Gravity currents over porous substrates. <i>Journal of Fluid Mechanics</i> , <b>1998</b> , 366, 239-258	3.7	25
83	The effect of background rotation on fluid motions: a report on Euromech 245. <i>Journal of Fluid Mechanics</i> , <b>1990</b> , 211, 417-435	3.7	25
82	Natural ventilation in cities: the implications of fluid mechanics. <i>Building Research and Information</i> , <b>2018</b> , 46, 809-828	4.3	22
81	Stability of a buoyancy-driven coastal current at the shelf break. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 452, 97-121	3.7	21
80	Entrainment in two coalescing axisymmetric turbulent plumes. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 752,	3.7	20
79	Lock-release inertial gravity currents over a thick porous layer. <i>Journal of Fluid Mechanics</i> , <b>2004</b> , 503, 299-319	3.7	20
78	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> , <b>2015</b> , 96, 20-29	7	19
77	Rotating gravity currents: small-scale and large-scale laboratory experiments and a geostrophic model. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 578, 35-65	3.7	19
76	Source-sink turbulence in a stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 261, 273-303	3.7	19
75	Mixing processes in a highly stratified river. <i>Coastal and Estuarine Studies</i> , <b>1998</b> , 389-400		18
74	Seasonal variation in airborne infection risk in schools due to changes in ventilation inferred from monitored carbon dioxide. <i>Indoor Air</i> , <b>2021</b> , 31, 1154-1163	5.4	18
73	Diapycnal mixing in layered stratified plane Couette flow quantified in a tracer-based coordinate. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 823, 198-229	3.7	17
72	Intrusive gravity currents between two stably stratified fluids. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 647, 53-69	3.7	17
71	Axisymmetric gravity currents on a cone. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 565, 227	3.7	17

70	The structure and origin of confined Holmboe waves. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 848, 508-544	3.7	16
69	Microbursts: a hazard for aircraft. <i>Nature</i> , <b>1985</b> , 317, 601-602	50.4	15
68	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> , <b>2020</b> , 7, 200680	3.3	15
67	Gravity current propagation up a valley. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 762, 417-434	3.7	14
66	Structure evolution at early stage of boundary-layer transition: simulation and experiment. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 890,	3.7	14
65	Stratified shear flow: experiments in an inclined duct. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 753, 242-253	3.7	14
64	The effectiveness of an air curtain in the doorway of a ventilated building. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 756, 130-164	3.7	14
63	Predicting the pore-filling ratio in lumen-impregnated wood. <i>Wood Science and Technology</i> , <b>2017</b> , 51, 1277-1290	2.5	14
62	Interacting Turbulent Plumes in a Naturally Ventilated Enclosure. <i>International Journal of Ventilation</i> , <b>2006</b> , 4, 301-310	1.1	13
61	The drag on a vertically moving grid of bars in a linearly stratified fluid. <i>Experiments in Fluids</i> , <b>2003</b> , 34, 678-686	2.5	12
60	Gravity currents in rotating channels. Part 1. Steady-state theory. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 457, 295-324	3.7	12
59	Conditional sampling of a high Péclet number turbulent plume and the implications for entrainment. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 823, 26-56	3.7	11
58	Particle transport in low-energy ventilation systems. Part 1: theory of steady states. <i>Indoor Air</i> , <b>2009</b> , 19, 122-9	5.4	11
57	Intermittent baroclinic instability and fluctuations in geophysical circulations. <i>Nature</i> , <b>1985</b> , 316, 801-803	50.4	11
56	The flow of a stratified fluid in a rotating annulus. <i>Journal of Fluid Mechanics</i> , <b>1977</b> , 79, 435-447	3.7	11
55	Predictive and retrospective modelling of airborne infection risk using monitored carbon dioxide. <i>Indoor and Built Environment</i> , 1420326X2110435	1.8	11
54	Characteristics of colliding sea breeze gravity current fronts: a laboratory study. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2017</b> , 143, 1434-1441	6.4	10
53	Local implications for self-similar turbulent plume models. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 575, 257-265	3.7	10

52	Testing the Assumptions Underlying Ocean Mixing Methodologies Using Direct Numerical Simulations. <i>Journal of Physical Oceanography</i> , <b>2019</b> , 49, 2761-2779	2.4	9
51	Validity of thermally-driven small-scale ventilated filling box models. <i>Experiments in Fluids</i> , <b>2013</b> , 54, 1	2.5	9
50	Anticyclonic precession of a plume in a rotating environment. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 9400-9407	4.9	9
49	Experimental investigations of quasi-two-dimensional vortices in a stratified fluid with source-bank forcing. <i>Journal of Fluid Mechanics</i> , <b>1999</b> , 383, 249-283	3.7	9
48	Experimental study on low-speed streaks in a turbulent boundary layer at low Reynolds number. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 903,	3.7	9
47	Numerical study of COVID-19 spatial-temporal spreading in London. <i>Physics of Fluids</i> , <b>2021</b> , 33, 046605	4.4	9
46	Natural ventilation in London: Towards energy-efficient and healthy buildings. <i>Building and Environment</i> , <b>2021</b> , 195, 107722	6.5	9
45	Mixing efficiency in run-down gravity currents. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 809, 691-704	3.7	9
44	Experimental exploration of fluid-driven cracks in brittle hydrogels. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 844, 435-458	3.7	8
43	The Fluxes and Behaviour of Plumes Inferred from Measurements of Coherent Structures within Images of the Bulk Flow. <i>Atmosphere - Ocean</i> , <b>2016</b> , 54, 403-417	1.5	8
42	A laboratory simulation of mixing across tidal fronts. <i>Journal of Fluid Mechanics</i> , <b>1996</b> , 309, 321-344	3.7	8
41	Free-surface effects on the spin-up of fluid in a rotating cylinder. <i>Journal of Fluid Mechanics</i> , <b>1991</b> , 232, 439	3.7	8
40	The effect of an indoor-outdoor temperature difference on transient cross-ventilation. <i>Building and Environment</i> , <b>2020</b> , 168, 106447	6.5	8
39	Confronting Grand Challenges in environmental fluid mechanics. <i>Physical Review Fluids</i> , <b>2021</b> , 6,	2.8	8
38	Detrainment of plumes from vertically distributed sources. <i>Environmental Fluid Mechanics</i> , <b>2018</b> , 18, 3-25	2.2	7
37	Intrusion-generated waves in a linearly stratified fluid. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 752, 282-295	3.7	7
36	The efficiency of pulsed-jet propulsion. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 668, 1-4	3.7	7
35	Cell geometry across the ring structure of Sitka spruce. <i>Journal of the Royal Society Interface</i> , <b>2018</b> , 15,	4.1	7

34	Colliding turbulent plumes. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 550, 85	3.7	6
33	Small-scale mixing in stably stratified fluids: a report on Euromech 51. <i>Journal of Fluid Mechanics</i> , <b>1975</b> , 67, 1-16	3.7	6
32	A comparison of entrainment in turbulent line plumes adjacent to and distant from a vertical wall. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 882,	3.7	6
31	The effect of double diffusion on entrainment in turbulent plumes. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 884,	3.7	6
30	A full-scale field study for evaluation of simple analytical models of cross ventilation and single-sided ventilation. <i>Building and Environment</i> , <b>2021</b> , 187, 107386	6.5	6
29	Buoyancy-driven flow between two rooms coupled by two openings at different levels. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 594, 425-443	3.7	5
28	Assessment and mitigation of personal exposure to particulate air pollution in cities: An exploratory study. <i>Sustainable Cities and Society</i> , <b>2021</b> , 72, 103052	10.1	5
27	Regime transitions and energetics of sustained stratified shear flows. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 875, 657-698	3.7	4
26	Benthic fronts and global excess radon distribution. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1983</b> , 25, 309-315	1.4	4
25	A metamorphosis of three-dimensional wave structure in transitional and turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 914,	3.7	4
24	Air Flow Experiments on a Train Carriage¶Towards Understanding the Risk of Airborne Transmission. <i>Atmosphere</i> , <b>2021</b> , 12, 1267	2.7	4
23	The effect of double diffusion on the dynamics of horizontal turbulent thermohaline jets. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 905,	3.7	3
22	The circular capillary jump. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 896,	3.7	3
21	Hydrogel as a Medium for Fluid-Driven Fracture Study. <i>Experimental Mechanics</i> , <b>2017</b> , 57, 1483-1493	2.6	3
20	The transport of liquids in softwood: timber as a model porous medium. <i>Scientific Reports</i> , <b>2019</b> , 9, 20282.9	2.9	3
19	Buoyancy-driven exchange flows in inclined ducts. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 893,	3.7	3
18	Data Assimilation in the Latent Space of a Convolutional Autoencoder. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 373-386	0.9	3
17	Flow of buoyant granular materials along a free surface. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 848, 312-339	3.7	2



16	Vertically distributed wall sources of buoyancy. Part 1. Unconfined. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 907,	3.7	2
15	Contaminant transport by human passage through an air curtain separating two sections of a corridor: Part I Uniform ambient temperature. <i>Energy and Buildings</i> , <b>2021</b> , 236, 110818	7	2
14	Eigenmode resonance in a two-layer stratification. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 460, 223-240	3.7	1
13	Sensitivity of horizontal flows to forcing geometry. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 432, 419-441	3.7	1
12	Spin-up of a two-layer fluid in a rotating cylinder. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1992</b> , 66, 47-66	1.4	1
11	Topographic instability and multiple equilibria on an f-plane. <i>Geophysical and Astrophysical Fluid Dynamics</i> , <b>1983</b> , 27, 163-182	1.4	1
10	Effects of background rotation on the dynamics of multiphase plumes. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 915,	3.7	1
9	Symmetric coalescence of two hydraulic fractures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 10228-10232	11.5	1
8	Transpiration through hydrogels. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 925,	3.7	1
7	Plumes in rotating fluid and their transformation into tornados. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 924,	3.7	1
6	Experimental properties of continuously forced, shear-driven, stratified turbulence. Part 1. Mean flows, self-organisation, turbulent fractions. <i>Journal of Fluid Mechanics</i> , <b>2022</b> , 937,	3.7	1
5	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> , <b>2010</b> , 664, 337-347	3.7	0
4	Report on Turbulence and Mixing in Geophysical Flows II. <i>Flow, Turbulence and Combustion</i> , <b>1997</b> , 59, 89-110		
3	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> , <b>1981</b> , 17, 319-329	1.4	
2	Geophysical and Environmental Fluid Dynamics. <i>Lecture Notes Series, Institute for Mathematical Sciences</i> , <b>2011</b> , 29-62	0.1	
1	Identifying Efficient Transport Pathways in Early-Wood Timber: Insights from 3D X-ray CT Imaging of Softwood in the Presence of Flow. <i>Transport in Porous Media</i> , <b>2021</b> , 136, 813-830	3.1	