

Graham O Hughes

List of Publications by Year in descending order

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54
papers

1,787
citations

304743

22
h-index

276875

41
g-index

54
all docs

54
docs citations

54
times ranked

1012
citing authors

#	ARTICLE	IF	CITATIONS
1	Whole-field density measurements by 'synthetic schlieren'. Experiments in Fluids, 2000, 28, 322-335.	2.4	291
2	Visualization and measurement of internal waves by "synthetic schlieren". Part 1. Vertically oscillating cylinder. Journal of Fluid Mechanics, 1999, 390, 93-126.	3.4	155
3	Experimental Investigation of Natural Convection Heat Loss From a Model Solar Concentrator Cavity Receiver. Journal of Solar Energy Engineering, Transactions of the ASME, 2004, 126, 801-807.	1.8	147
4	Horizontal Convection. Annual Review of Fluid Mechanics, 2008, 40, 185-208.	25.0	145
5	Convection driven by differential heating at a horizontal boundary. Journal of Fluid Mechanics, 2004, 516, 181-209.	3.4	93
6	Available Potential Energy and Irreversible Mixing in the Meridional Overturning Circulation. Journal of Physical Oceanography, 2009, 39, 3130-3146.	1.7	85
7	A simple convective model of the global overturning circulation, including effects of entrainment into sinking regions. Ocean Modelling, 2006, 12, 46-79.	2.4	72
8	Numerical Investigation of Natural Convection Loss From Cavity Receivers in Solar Dish Applications. Journal of Solar Energy Engineering, Transactions of the ASME, 2011, 133, .	1.8	56
9	Stability transitions and turbulence in horizontal convection. Journal of Fluid Mechanics, 2014, 751, 698-724.	3.4	53
10	Energetics of horizontal convection. Journal of Fluid Mechanics, 2013, 716, .	3.4	42
11	Investigation of Heat Loss from a Solar Cavity Receiver. Energy Procedia, 2015, 69, 269-278.	1.8	39
12	A theoretical model for horizontal convection at high Rayleigh number. Journal of Fluid Mechanics, 2007, 581, 251-276.	3.4	38
13	Completing the Mechanical Energy Pathways in Turbulent Rayleigh-Bénard Convection. Physical Review Letters, 2013, 111, 124301.	7.8	32
14	Underground Fumaroles: "Excess Heat" Effects in Vein Formation. Economic Geology, 2000, 95, 453-466.	3.8	30
15	Horizontal convection dynamics: insights from transient adjustment. Journal of Fluid Mechanics, 2013, 726, 559-595.	3.4	28
16	Sandström's experiments revisited. Journal of Marine Research, 2006, 64, 783-796.	0.3	26
17	Estimating Lorenz's Reference State in an Ocean with a Nonlinear Equation of State for Seawater. Journal of Physical Oceanography, 2015, 45, 1242-1257.	1.7	26
18	Mechanical power input from buoyancy and wind to the circulation in an ocean model. Geophysical Research Letters, 2012, 39, .	4.0	25

#	ARTICLE	IF	CITATIONS
19	Available potential energy in Rayleigh-Bénard convection. <i>Journal of Fluid Mechanics</i> , 2013, 729, .	3.4	25
20	On the meaning of mixing efficiency for buoyancy-driven mixing in stratified turbulent flows. <i>Journal of Fluid Mechanics</i> , 2015, 781, 261-275.	3.4	25
21	Internal waves revisited. <i>Dynamics of Atmospheres and Oceans</i> , 2000, 31, 209-232.	1.8	23
22	Development of a higher-efficiency tubular cavity receiver for direct steam generation on a dish concentrator. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	23
23	Shear layers driven by turbulent plumes. <i>Journal of Fluid Mechanics</i> , 2001, 434, 209-241.	3.4	19
24	Mixing efficiency in controlled exchange flows. <i>Journal of Fluid Mechanics</i> , 2008, 600, 235-244.	3.4	19
25	The coupling of waves and convection. <i>Journal of Fluid Mechanics</i> , 1998, 372, 231-271.	3.4	18
26	The Role of Turbulent Mixing in an Overturning Circulation Maintained by Surface Buoyancy Forcing. <i>Journal of Physical Oceanography</i> , 2012, 42, 1907-1922.	1.7	18
27	Experiments with mixing in stratified flow over a topographic ridge. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 6961-6977.	2.6	18
28	Experimental testing of a high-flux cavity receiver. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	18
29	Experimental correlation of natural convection losses from a scale-model solar cavity receiver with non-isothermal surface temperature distribution. <i>Solar Energy</i> , 2020, 198, 355-375.	6.1	18
30	SO ₂ flux and the thermal power of volcanic eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 324, 190-199.	2.1	14
31	Effects of topography on the cumulative mixing efficiency in exchange flows. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	13
32	The effects of geothermal heating on the ocean overturning circulation. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	12
33	Active Air Flow Control to Reduce Cavity Receiver Heat Loss. , 2015, , .		12
34	Mixing efficiency in run-down gravity currents. <i>Journal of Fluid Mechanics</i> , 2016, 809, 691-704.	3.4	12
35	Effect of topographic barriers on the rates of available potential energy conversion of the oceans. <i>Ocean Modelling</i> , 2014, 76, 31-42.	2.4	11
36	Reduction of convective losses in solar cavity receivers. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	11

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37	When do marginal seas and topographic sills modify the ocean density structure?. Journal of Geophysical Research, 2011, 116, .	3.3	10
38	Optical and thermal performance of bladed receivers. AIP Conference Proceedings, 2017, , .	0.4	10
39	The sensitivity of convection from a horizontal boundary to the distribution of heating. Journal of Fluid Mechanics, 2010, 647, 71-90.	3.4	9
40	The role of freshwater fluxes in the thermohaline circulation: Insights from a laboratory analogue. Deep-Sea Research Part I: Oceanographic Research Papers, 2007, 54, 1-21.	1.4	8
41	Inside the head and tail of a turbulent gravity current. Journal of Fluid Mechanics, 2016, 790, 1-4.	3.4	7
42	Towards testing of a second-generation bladed receiver. AIP Conference Proceedings, 2019, , .	0.4	7
43	Air curtains for reduction of natural convection heat loss from a heated plate: A numerical investigation. International Journal of Heat and Mass Transfer, 2022, 189, 122709.	4.8	7
44	On the robustness of emptying filling boxes to sudden changes in the wind. Journal of Fluid Mechanics, 2019, 868, .	3.4	6
45	Turbulent mixing in uniform channels of irregular cross-section. Journal of Hydraulic Research/De Recherches Hydrauliques, 1994, 32, 67-86.	1.7	5
46	Shear flow and viscosity in single-layer hydraulics. Journal of Fluid Mechanics, 2006, 548, 431.	3.4	4
47	Adjustment of the Meridional Overturning Circulation and Its Dependence on Depth of Mixing. Journal of Physical Oceanography, 2016, 46, 731-747.	1.7	4
48	Natural ventilation flows established by a localised heat source in a room with a doorway and a high-level vent. Building and Environment, 2021, 203, 108093.	6.9	4
49	Analysis of Air Curtains for Natural Convection Heat-Loss Mitigation. , 2020, , .		4
50	Ocean stratification under oscillatory surface buoyancy forcing. Journal of Marine Research, 2011, 69, 523-543.	0.3	3
51	The effect of a barrier on laminar convection in a box with differentially heated endwalls. International Journal of Heat and Mass Transfer, 2006, 49, 2903-2911.	4.8	2
52	Turbulent contribution to heat loss in cavity receivers. AIP Conference Proceedings, 2017, , .	0.4	2
53	Energetics of mixing for the filling box and the emptying-filling box. Environmental Fluid Mechanics, 2019, 19, 819-831.	1.6	2
54	Improved Tubular Receivers for Point-focus Concentrators. , 2014, , .		1