Daniel Chung

List of Publications by Citations

53 papers	1,409 citations	22 h-index	37 g-index
61 ext. papers	1,901 ext. citations	3.6 avg, IF	5.15 L-index

#	Paper	IF	Citations
53	Large-eddy simulation of large-scale structures in long channel flow. *Journal of Fluid Mechanics*, **2010**, 661, 341-364	3.7	126
52	Amplitude and frequency modulation in wall turbulence. *Journal of Fluid Mechanics*, **2012**, 712, 61-91	3.7	113
51	Large-eddy simulation and wall modelling of turbulent channel flow. *Journal of Fluid Mechanics*, **2009**, 631, 281-309	3.7	83
50	A Unified Model for Moist Convective Boundary Layers Based on a Stochastic Eddy-Diffusivity/Mass-Flux Parameterization. *Journals of the Atmospheric Sciences*, **2013**, 70, 1929-1953	2.1	82
49	A systematic investigation of roughness height and wavelength in turbulent pipe flow in the transitionally rough regime. *Journal of Fluid Mechanics*, **2015**, 771, 743-777	3.7	79
48	Direct numerical simulation of stationary homogeneous stratified sheared turbulence. *Journal of Fluid Mechanics*, **2012**, 696, 434-467	3.7	77
47	On the Fidelity of Large-Eddy Simulation of Shallow Precipitating Cumulus Convection. *Monthly Weather Review*, **2011**, 139, 2918-2939	2.4	70
46	Vertical natural convection: application of the unifying theory of thermal convection. *Journal of Fluid Mechanics*, **2015**, 764, 349-361	3.7	62
45	Large-Eddy Simulation of Stratified Turbulence. Part II: Application of the Stretched-Vortex Model to the Atmospheric Boundary Layer. *Journals of the Atmospheric Sciences*, **2014**, 71, 4439-4460	2.1	53
44	Direct numerical simulation and large-eddy simulation of stationary buoyancy-driven turbulence. *Journal of Fluid Mechanics*, **2010**, 643, 279-308	3.7	49
43	A fast direct numerical simulation method for characterising hydraulic roughness. *Journal of Fluid Mechanics*, **2015**, 773, 418-431	3.7	39
42	Steady-State Large-Eddy Simulations to Study the Stratocumulus to Shallow Cumulus Cloud Transition. *Journals of the Atmospheric Sciences*, **2012**, 69, 3264-3276	2.1	36
41	Turbulent flow over transitionally rough surfaces with varying roughness densities. *Journal of Fluid Mechanics*, **2016**, 804, 130-161	3.7	34
40	Large-Eddy Simulation of Stratified Turbulence. Part I: A Vortex-Based Subgrid-Scale Model. *Journals of the Atmospheric Sciences*, **2014**, 71, 1863-1879	2.1	33
39	Direct numerical simulation of the incompressible temporally developing turbulent boundary layer. *Journal of Fluid Mechanics*, **2016**, 796, 437-472	3.7	30
38	Similarity and structure of wall turbulence with lateral wall shear stress variations. *Journal of Fluid Mechanics*, **2018**, 847, 591-613	3.7	30
37	The minimal-span channel for rough-wall turbulent flows. *Journal of Fluid Mechanics*, **2017**, 816, 5-42	3.7	28

36	Changes in the boundary-layer structure at the edge of the ultimate regime in vertical natural convection. *Journal of Fluid Mechanics*, **2017**, 825, 550-572	3.7	28
35	An idealised assessment of Townsend's outer-layer similarity hypothesis for wall turbulence. *Journal of Fluid Mechanics*, **2014**, 742,	3.7	27
34	Secondary motion in turbulent pipe flow with three-dimensional roughness. *Journal of Fluid Mechanics*, **2018**, 854, 5-33	3.7	26
33	Predicting the Drag of Rough Surfaces. *Annual Review of Fluid Mechanics*, **2021**, 53, 439-471	22	24
32	Flow past a transversely rotating sphere at Reynolds numbers above the laminar regime. *Journal of Fluid Mechanics*, **2014**, 759, 751-781	3.7	23
31	On the universality of inertial energy in the log layer of turbulent boundary layer and pipe flows. *Experiments in Fluids*, **2015**, 56, 1	2.5	22
30	Global and local aspects of entrainment in temporal plumes. *Journal of Fluid Mechanics*, **2017**, 812, 222-250	3.7	21
29	Direct numerical simulation of open-channel flow over smooth-to-rough and rough-to-smooth step changes. *Journal of Fluid Mechanics*, **2019**, 866, 450-486	3.7	19
28	Roughness effects in turbulent forced convection. *Journal of Fluid Mechanics*, **2019**, 861, 138-162	3.7	19
27	The effect of spanwise wavelength of surface heterogeneity on turbulent secondary flows. *Journal of Fluid Mechanics*, **2020**, 894,	3.7	17
26	Detecting surface-feeding behavior by rorqual whales in accelerometer data. *Marine Mammal Science*, **2016**, 32, 327-348	1.9	16
25	Bulk scaling in wall-bounded and homogeneous vertical natural convection. *Journal of Fluid Mechanics*, **2018**, 841, 825-850	3.7	15
24	Turbulent natural convection scaling in a vertical channel. *International Journal of Heat and Fluid Flow*, **2013**, 44, 554-562	2.4	14
23	Recovery of wall-shear stress to equilibrium flow conditions after a rough-to-smooth step change in turbulent boundary layers. *Journal of Fluid Mechanics*, **2019**, 872, 472-491	3.7	13
22	A Simple Model for Stratocumulus to Shallow Cumulus Cloud Transitions. *Journal of Climate*, **2012**, 25, 2547-2554	4.4	13
21	Direct numerical simulation of high aspect ratio spanwise-aligned bars. *Journal of Fluid Mechanics*, **2018**, 843, 126-155	3.7	12
20	Direct numerical simulations of Taylor–Couette turbulence: the effects of sand grain roughness. *Journal of Fluid Mechanics*, **2019**, 873, 260-286	3.7	9
19	Turbulent flow over a long flat plate with uniform roughness. *Physical Review Fluids*, **2017**, 2,	2.8	8

18	Heat transfer in rough-wall turbulent thermal convection in the ultimate regime. *Physical Review Fluids*, **2019**, 4,	2.8	8
17	Incompressible variable-density turbulence in an external acceleration field. *Journal of Fluid Mechanics*, **2017**, 827, 506-535	3.7	7
16	Manipulation of near-wall turbulence by surface slip and permeability. *Journal of Physics: Conference Series*, **2018**, 1001, 012011	0.3	7
15	Transition to ultimate Rayleigh–Bénard turbulence revealed through extended self-similarity scaling analysis of the temperature structure functions. *Journal of Fluid Mechanics*, **2018**, 851,	3.7	5
14	Large-eddy simulation of a stratocumulus cloud. *Physical Review Fluids*, **2017**, 2,	2.8	4
13	Controlling secondary flow in Taylor–Couette turbulence through spanwise-varying roughness. *Journal of Fluid Mechanics*, **2020**, 883,	3.7	4
12	An energy-efficient pathway to turbulent drag reduction. *Nature Communications*, **2021**, 12, 5805	17.4	3
11	Influence of riblet shapes on the occurrence of Kelvin–Helmholtz rollers. *Journal of Fluid Mechanics*, **2021**, 913,	3.7	3
10	The minimal channel: a fast and direct method for characterising roughness. *Journal of Physics: Conference Series*, **2016**, 708, 012010	0.3	3
9	Roughness and Reynolds Number Effects on the Flow Past a Rough-to-Smooth Step Change. *Springer Proceedings in Physics*, **2019**, 81-86	0.2	2
8	The smooth-wall-like behaviour of turbulence over drag-altering surfaces: a unifying virtual-origin framework. *Journal of Fluid Mechanics*, **2021**, 915,	3.7	2
7	Coriolis effect on centrifugal buoyancy-driven convection in a thin cylindrical shell. *Journal of Fluid Mechanics*, **2021**, 910,	3.7	2
6	Experimental study of a turbulent boundary layer with a rough-to-smooth change in surface conditions at high Reynolds numbers. *Journal of Fluid Mechanics*, **2021**, 923,	3.7	2
5	Analysis of the coherent and turbulent stresses of a numerically simulated rough wall pipe. *Journal of Physics: Conference Series*, **2017**, 822, 012011	0.3	1
4	Response of the temporal turbulent boundary layer to decaying free-stream turbulence. *Journal of Fluid Mechanics*, **2020**, 896,	3.7	1
3	Calculation of the mean velocity profile for strongly turbulent Taylor–Couette flow at arbitrary radius ratios. *Journal of Fluid Mechanics*, **2020**, 905,	3.7	1
2	Direct Numerical Simulations of Turbulent Flow Over Various Riblet Shapes in Minimal-Span Channels. *Flow, Turbulence and Combustion*, **2021**, 107, 1-29	2.5	0
1	Turbulent flow over spanwise-varying roughness in a minimal streamwise channel. *Journal of Physics: Conference Series*, **2020**, 1522, 012018	0.3	