## **Daniel Chung**

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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

#	Paper	IF	Citations
53	An energy-efficient pathway to turbulent drag reduction. <i>Nature Communications</i> , <b>2021</b> , 12, 5805	17.4	3
52	The smooth-wall-like behaviour of turbulence over drag-altering surfaces: a unifying virtual-origin framework. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 915,	3.7	2
51	Influence of riblet shapes on the occurrence of KelvinHelmholtz rollers. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 913,	3.7	3
50	Direct Numerical Simulations of Turbulent Flow Over Various Riblet Shapes in Minimal-Span Channels. <i>Flow, Turbulence and Combustion</i> , <b>2021</b> , 107, 1-29	2.5	О
49	Coriolis effect on centrifugal buoyancy-driven convection in a thin cylindrical shell. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 910,	3.7	2
48	Predicting the Drag of Rough Surfaces. Annual Review of Fluid Mechanics, 2021, 53, 439-471	22	24
47	Experimental study of a turbulent boundary layer with a rough-to-smooth change in surface conditions at high Reynolds numbers. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 923,	3.7	2
46	Response of the temporal turbulent boundary layer to decaying free-stream turbulence. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 896,	3.7	1
45	Turbulent flow over spanwise-varying roughness in a minimal streamwise channel. <i>Journal of Physics: Conference Series</i> , <b>2020</b> , 1522, 012018	0.3	
44	The effect of spanwise wavelength of surface heterogeneity on turbulent secondary flows. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 894,	3.7	17
43	Controlling secondary flow in TaylorLouette turbulence through spanwise-varying roughness. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 883,	3.7	4
42	Calculation of the mean velocity profile for strongly turbulent Taylor Louette flow at arbitrary radius ratios. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 905,	3.7	1
41	Recovery of wall-shear stress to equilibrium flow conditions after a rough-to-smooth step change in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 872, 472-491	3.7	13
40	Direct numerical simulation of open-channel flow over smooth-to-rough and rough-to-smooth step changes. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 866, 450-486	3.7	19
39	Direct numerical simulations of Taylor Couette turbulence: the effects of sand grain roughness. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 873, 260-286	3.7	9
38	Heat transfer in rough-wall turbulent thermal convection in the ultimate regime. <i>Physical Review Fluids</i> , <b>2019</b> , 4,	2.8	8
37	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

36	Roughness effects in turbulent forced convection. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 861, 138-162	3.7	19	
35	Bulk scaling in wall-bounded and homogeneous vertical natural convection. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 841, 825-850	3.7	15	
34	Direct numerical simulation of high aspect ratio spanwise-aligned bars. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 843, 126-155	3.7	12	
33	Manipulation of near-wall turbulence by surface slip and permeability. <i>Journal of Physics:</i> Conference Series, <b>2018</b> , 1001, 012011	0.3	7	
32	Transition to ultimate Rayleigh <b>B</b> flard turbulence revealed through extended self-similarity scaling analysis of the temperature structure functions. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 851,	3.7	5	
31	Secondary motion in turbulent pipe flow with three-dimensional roughness. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 854, 5-33	3.7	26	
30	Similarity and structure of wall turbulence with lateral wall shear stress variations. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 847, 591-613	3.7	30	
29	The minimal-span channel for rough-wall turbulent flows. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 816, 5-42	3.7	28	
28	Analysis of the coherent and turbulent stresses of a numerically simulated rough wall pipe. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 822, 012011	0.3	1	
27	Global and local aspects of entrainment in temporal plumes. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 812, 222	-2 <u>5</u> 9	21	
26	Incompressible variable-density turbulence in an external acceleration field. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 827, 506-535	3.7	7	
25	Changes in the boundary-layer structure at the edge of the ultimate regime in vertical natural convection. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 825, 550-572	3.7	28	
24	Turbulent flow over a long flat plate with uniform roughness. Physical Review Fluids, 2017, 2,	2.8	8	
23	Large-eddy simulation of a stratocumulus cloud. <i>Physical Review Fluids</i> , <b>2017</b> , 2,	2.8	4	
22	Detecting surface-feeding behavior by rorqual whales in accelerometer data. <i>Marine Mammal Science</i> , <b>2016</b> , 32, 327-348	1.9	16	
21	The minimal channel: a fast and direct method for characterising roughness. <i>Journal of Physics:</i> Conference Series, <b>2016</b> , 708, 012010	0.3	3	
20	Turbulent flow over transitionally rough surfaces with varying roughness densities. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 804, 130-161	3.7	34	
19	Direct numerical simulation of the incompressible temporally developing turbulent boundary layer. Journal of Fluid Mechanics, <b>2016</b> , 796, 437-472	3.7	30	

18	On the universality of inertial energy in the log layer of turbulent boundary layer and pipe flows. <i>Experiments in Fluids</i> , <b>2015</b> , 56, 1	2.5	22
17	Vertical natural convection: application of the unifying theory of thermal convection. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 764, 349-361	3.7	62
16	A systematic investigation of roughness height and wavelength in turbulent pipe flow in the transitionally rough regime. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 771, 743-777	3.7	79
15	A fast direct numerical simulation method for characterising hydraulic roughness. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 773, 418-431	3.7	39
14	Large-Eddy Simulation of Stratified Turbulence. Part I: A Vortex-Based Subgrid-Scale Model. Journals of the Atmospheric Sciences, <b>2014</b> , 71, 1863-1879	2.1	33
13	An idealised assessment of Townsend outer-layer similarity hypothesis for wall turbulence. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 742,	3.7	27
12	Large-Eddy Simulation of Stratified Turbulence. Part II: Application of the Stretched-Vortex Model to the Atmospheric Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , <b>2014</b> , 71, 4439-4460	2.1	53
11	Flow past a transversely rotating sphere at Reynolds numbers above the laminar regime. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 759, 751-781	3.7	23
10	Turbulent natural convection scaling in a vertical channel. <i>International Journal of Heat and Fluid Flow</i> , <b>2013</b> , 44, 554-562	2.4	14
9	A Unified Model for Moist Convective Boundary Layers Based on a Stochastic Eddy-Diffusivity/Mass-Flux Parameterization. <i>Journals of the Atmospheric Sciences</i> , <b>2013</b> , 70, 1929-1953	2.1	82
8	Amplitude and frequency modulation in wall turbulence. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 712, 61-91	3.7	113
7	Direct numerical simulation of stationary homogeneous stratified sheared turbulence. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 696, 434-467	3.7	77
6	Steady-State Large-Eddy Simulations to Study the Stratocumulus to Shallow Cumulus Cloud Transition. <i>Journals of the Atmospheric Sciences</i> , <b>2012</b> , 69, 3264-3276	2.1	36
5	A Simple Model for Stratocumulus to Shallow Cumulus Cloud Transitions. <i>Journal of Climate</i> , <b>2012</b> , 25, 2547-2554	4.4	13
4	On the Fidelity of Large-Eddy Simulation of Shallow Precipitating Cumulus Convection. <i>Monthly Weather Review</i> , <b>2011</b> , 139, 2918-2939	2.4	70
3	Direct numerical simulation and large-eddy simulation of stationary buoyancy-driven turbulence. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 643, 279-308	3.7	49
2	Large-eddy simulation of large-scale structures in long channel flow. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 661, 341-364	3.7	126
1	Large-eddy simulation and wall modelling of turbulent channel flow. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 631, 281-309	3.7	83