

# Yongyun Hwang

## List of Publications by Year in descending order

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44  
papers

1,529  
citations

331670

21  
h-index

302126

39  
g-index

44  
all docs

44  
docs citations

44  
times ranked

600  
citing authors

#	ARTICLE	IF	CITATIONS
1	A local approximation model for macroscale transport of biased active Brownian particles in a flowing suspension. Journal of Fluid Mechanics, 2022, 935, .	3.4	12
2	Generalised quasilinear approximations of turbulent channel flow. Part 1. Streamwise nonlinear energy transfer. Journal of Fluid Mechanics, 2022, 936, .	3.4	10
3	A sparse optimal closure for a reduced-order model of wall-bounded turbulence. Journal of Fluid Mechanics, 2022, 939, .	3.4	4
4	The logarithmic variance of streamwise velocity and conundrum in wall turbulence. Journal of Fluid Mechanics, 2022, 933, .	3.4	6
5	A driving mechanism of near-wall turbulence subject to adverse pressure gradient in a plane Couette flow. Journal of Fluid Mechanics, 2022, 941, .	3.4	5
6	Generalised quasilinear approximations of turbulent channel flow. Part 2. Spanwise triadic scale interactions. Journal of Fluid Mechanics, 2022, 944, .	3.4	9
7	Minimal multi-scale dynamics of near-wall turbulence. Journal of Fluid Mechanics, 2021, 913, .	3.4	17
8	Orr mechanism in transition of parallel shear flow. Physical Review Fluids, 2021, 6, .	2.5	10
9	Scaling of turbulence intensities up to $Re_{\tau} \approx 1000$ with a resolvent-based quasilinear approximation. Physical Review Fluids, 2021, 6, .	2.5	10
10	Spectral Energetics of a Quasilinear Approximation in Uniform Shear Turbulence. Springer Proceedings in Physics, 2021, , 245-251.	0.2	0
11	Instabilities and sensitivities in a flow over a rotationally flexible cylinder with a rigid splitter plate. Journal of Fluid Mechanics, 2021, 928, .	3.4	2
12	Spectral energetics of a quasilinear approximation in uniform shear turbulence. Journal of Fluid Mechanics, 2020, 904, .	3.4	6
13	The mean logarithm emerges with self-similar energy balance. Journal of Fluid Mechanics, 2020, 903, .	3.4	11
14	A sequence of transcritical bifurcations in a suspension of gyrotactic microswimmers in vertical pipe. Journal of Fluid Mechanics, 2020, 902, .	3.4	4
15	Bifurcation and stability of downflowing gyrotactic micro-organism suspensions in a vertical pipe. Journal of Fluid Mechanics, 2020, 902, .	3.4	9
16	Attached eddy model revisited using a minimal quasi-linear approximation. Journal of Fluid Mechanics, 2020, 894, .	3.4	22
17	Linear instability of tilted parallel shear flow in a strongly stratified and viscous medium. JMST Advances, 2020, 2, 37-51.	1.9	1
18	Shear stress-driven flow: the state space of near-wall turbulence as. Journal of Fluid Mechanics, 2019, 874, 606-638.	3.4	18

#	ARTICLE	IF	CITATIONS
19	The instability of gyrotactically trapped cell layers. <i>Journal of Fluid Mechanics</i> , 2019, 868, .	3.4	5
20	Phase-space dynamics of opposition control in wall-bounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2019, 861, 29-54.	3.4	6
21	Exact coherent states of attached eddies in channel flow. <i>Journal of Fluid Mechanics</i> , 2019, 862, 1029-1059.	3.4	31
22	Quasilinear approximation for exact coherent states in parallel shear flows. <i>Fluid Dynamics Research</i> , 2019, 51, 011402.	1.3	18
23	Energy production and self-sustained turbulence at the Kolmogorov scale in Couette flow. <i>Journal of Fluid Mechanics</i> , 2018, 834, 531-554.	3.4	11
24	Scale interactions and spectral energy transfer in turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2018, 854, 474-504.	3.4	74
25	Streak instability in near-wall turbulence revisited. <i>Journal of Turbulence</i> , 2017, 18, 443-464.	1.4	32
26	Streak instability in turbulent channel flow: the seeding mechanism of large-scale motions. <i>Journal of Fluid Mechanics</i> , 2017, 832, 483-513.	3.4	37
27	Invariant solutions of minimal large-scale structures in turbulent channel flow for $up \leq 1000$ . <i>Journal of Fluid Mechanics</i> , 2016, 802, .	3.4	40
28	Skin-friction generation by attached eddies in turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2016, 808, 511-538.	3.4	72
29	Self-sustaining process of minimal attached eddies in turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2016, 795, 708-738.	3.4	87
30	Mesolayer of attached eddies in turbulent channel flow. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	35
31	On the self-sustained nature of large-scale motions in turbulent Couette flow. <i>Journal of Fluid Mechanics</i> , 2015, 782, 515-540.	3.4	43
32	Statistical structure of self-sustaining attached eddies in turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2015, 767, 254-289.	3.4	150
33	Structural sensitivities of soft and steep nonlinear global modes in spatially developing media. <i>European Journal of Mechanics, B/Fluids</i> , 2015, 49, 322-334.	2.5	2
34	Intracellular regulation of cell signaling cascades: how location makes a difference. <i>Journal of Mathematical Biology</i> , 2014, 69, 213-242.	1.9	5
35	Bioconvection under uniform shear: linear stability analysis. <i>Journal of Fluid Mechanics</i> , 2014, 738, 522-562.	3.4	36
36	Stability of downflowing gyrotactic microorganism suspensions in a two-dimensional vertical channel. <i>Journal of Fluid Mechanics</i> , 2014, 749, 750-777.	3.4	32

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37	Near-wall turbulent fluctuations in the absence of wide outer motions. <i>Journal of Fluid Mechanics</i> , 2013, 723, 264-288.	3.4	90
38	Stabilization of absolute instability in spanwise wavy two-dimensional wakes. <i>Journal of Fluid Mechanics</i> , 2013, 727, 346-378.	3.4	45
39	On the stability of large-scale streaks in turbulent Couette and Poiseuille flows. <i>Comptes Rendus - Mecanique</i> , 2011, 339, 1-5.	2.1	33
40	Self-sustained processes in the logarithmic layer of turbulent channel flows. <i>Physics of Fluids</i> , 2011, 23, .	4.0	63
41	Amplification of coherent streaks in the turbulent Couette flow: an input-output analysis at low Reynolds number. <i>Journal of Fluid Mechanics</i> , 2010, 643, 333-348.	3.4	108
42	Linear non-normal energy amplification of harmonic and stochastic forcing in the turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2010, 664, 51-73.	3.4	155
43	Self-Sustained Process at Large Scales in Turbulent Channel Flow. <i>Physical Review Letters</i> , 2010, 105, 044505.	7.8	130
44	Optimally amplified large-scale streaks and drag reduction in turbulent pipe flow. <i>Physical Review E</i> , 2010, 82, 036321.	2.1	31