

# James J Riley

## List of Publications by Year in descending order

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44  
papers

2,568  
citations

304743

22  
h-index

276875

41  
g-index

44  
all docs

44  
docs citations

44  
times ranked

1869  
citing authors

#	ARTICLE	IF	CITATIONS
1	Available potential energy and mixing in density-stratified fluids. <i>Journal of Fluid Mechanics</i> , 1995, 289, 115-128.	3.4	459
2	Secondary instability of a temporally growing mixing layer. <i>Journal of Fluid Mechanics</i> , 1987, 184, 207-243.	3.4	329
3	A subgrid model for equilibrium chemistry in turbulent flows. <i>Physics of Fluids</i> , 1994, 6, 2868-2870.	4.0	290
4	Mixing Efficiency in the Ocean. <i>Annual Review of Marine Science</i> , 2018, 10, 443-473.	11.6	284
5	On the interaction of compliant coatings with boundary-layer flows. <i>Journal of Fluid Mechanics</i> , 1984, 140, 257-280.	3.4	123
6	Analysis of Turbulence Collapse in the Stably Stratified Surface Layer Using Direct Numerical Simulation. <i>Boundary-Layer Meteorology</i> , 2011, 139, 241-259.	2.3	94
7	Investigation of closure models for nonpremixed turbulent reacting flows. <i>Physics of Fluids</i> , 1994, 6, 1331-1356.	4.0	88
8	Direct numerical simulation of laboratory experiments in isotropic turbulence. <i>Physics of Fluids</i> , 1998, 10, 2125-2127.	4.0	79
9	Instability and breakdown of internal gravity waves. I. Linear stability analysis. <i>Physics of Fluids</i> , 1996, 8, 3271-3287.	4.0	73
10	Self-sustained oscillations in variable-density round jets. <i>Journal of Fluid Mechanics</i> , 2007, 582, 341-376.	3.4	61
11	Testing of mixing models for Monte Carlo probability density function simulations. <i>Physics of Fluids</i> , 2005, 17, 047101.	4.0	53
12	Stochastic modelling of inertial particle dispersion by subgrid motion for LES of high Reynolds number pipe flow. <i>Journal of Turbulence</i> , 2007, 8, N50.	1.4	48
13	Rotating free-shear flows. Part 2. Numerical simulations. <i>Journal of Fluid Mechanics</i> , 1995, 293, 47-80.	3.4	46
14	Characterization of mixing performance for bio-mimetic silicone cilia. <i>Microfluidics and Nanofluidics</i> , 2010, 9, 645-655.	2.2	42
15	Turbulent/non-turbulent interfaces in wakes in stably stratified fluids. <i>Journal of Fluid Mechanics</i> , 2016, 797, .	3.4	42
16	The effects of stable stratification on the decay of initially isotropic homogeneous turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 860, 787-821.	3.4	33
17	Direct Numerical Simulation Investigation of the Conditional Moment Closure Model for Nonpremixed Turbulent Reacting Flows. <i>Combustion Science and Technology</i> , 1993, 91, 179-186.	2.3	31
18	Vortex Structures in the Wake of an Idealized Seamount in Rotating, Stratified Flow. <i>Geophysical Research Letters</i> , 2018, 45, 9098-9105.	4.0	31

#	ARTICLE	IF	CITATIONS
19	The Premixed Conditional Moment Closure Method Applied to Idealized Lean Premixed Gas Turbine Combustors. <i>Journal of Engineering for Gas Turbines and Power</i> , 2003, 125, 895-900.	1.1	29
20	A localized turbulent mixing layer in a uniformly stratified environment. <i>Journal of Fluid Mechanics</i> , 2018, 849, 245-276.	3.4	25
21	Hairpin vortices and highly elongated flow structures in a stably stratified shear layer. <i>Journal of Fluid Mechanics</i> , 2019, 878, 37-61.	3.4	23
22	Re-examining the thermal mixing layer with numerical simulations. <i>Physics of Fluids</i> , 2000, 12, 185-192.	4.0	22
23	Dispersion and temperature statistics of inertial particles in isotropic turbulence. <i>Physics of Fluids</i> , 2010, 22, .	4.0	22
24	Energetics of Seamount Wakes. Part I: Energy Exchange. <i>Journal of Physical Oceanography</i> , 2020, 50, 1365-1382.	1.7	22
25	Direct numerical simulation of reacting scalar mixing layers. <i>Physics of Fluids</i> , 2001, 13, 1450-1465.	4.0	21
26	A Lagrangian study of scalar diffusion in isotropic turbulence with chemical reaction. <i>Physics of Fluids</i> , 2003, 15, 3856-3866.	4.0	21
27	Effects of stable stratification on turbulent/nonturbulent interfaces in turbulent mixing layers. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	20
28	The length-scale dependence of scalar mixing. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 2474-2476.	1.6	19
29	Three-dimensional electroconvective vortices in cross flow. <i>Physical Review E</i> , 2020, 101, 033103.	2.1	18
30	Review of Large-Eddy Simulation of Non-Premixed Turbulent Combustion. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2006, 128, 209-215.	1.5	15
31	Energetics of Seamount Wakes. Part II: Wave Fluxes. <i>Journal of Physical Oceanography</i> , 2020, 50, 1383-1398.	1.7	15
32	Turbulent entrainment across turbulent-nonturbulent interfaces in stably stratified mixing layers. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	15
33	On the dynamics of turbulence near a free surface. <i>Journal of Fluid Mechanics</i> , 2017, 821, 248-265.	3.4	13
34	Homogeneous turbulence in ferrofluids with a steady magnetic field. <i>Journal of Fluid Mechanics</i> , 2008, 599, 1-28.	3.4	12
35	Mixing Models for Large-Eddy Simulation of Nonpremixed Turbulent Combustion. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2001, 123, 341-346.	1.5	10
36	Enhanced bioreaction efficiency of a microfluidic mixer toward high-throughput and low-cost bioassays. <i>Microfluidics and Nanofluidics</i> , 2012, 12, 143-156.	2.2	10

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37	Dynamics of Cilia-Based Microfluidic Devices. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2011, 133, .	1.6	7
38	Idealized headland simulation for tidal hydrokinetic turbine siting metrics. , 2010, , .		5
39	On the kinematics of scalar iso-surfaces in decaying homogeneous, isotropic turbulence. Journal of Turbulence, 2019, 20, 661-680.	1.4	5
40	Rotating magnetohydrodynamic free-shear flows. I. Linear stability analysis. Physics of Fluids, 2001, 13, 1946-1955.	4.0	4
41	Effect of viscous-convective subrange on passive scalar statistics at high Reynolds number. Physical Review Fluids, 2022, 7, .	2.5	4
42	PROGRESS IN SUBGRID-SCALE COMBUSTION MODELING. , 1998, , 914-931.		3
43	A-priori testing of alpha regularisation models as subgrid-scale closures for large-eddy simulations. Journal of Turbulence, 2013, 14, 1-20.	1.4	2
44	Symposium on Geophysical Flows. Applied Mechanics Reviews, 1994, 47, S107-S107.	10.1	0