Stephen de Bruyn Kops

List of Publications by Year
in descending order

28 papers	655 citations	471061 17 h-index	552369 26 g-index
28 all docs	28 docs citations	28 times ranked	469 citing authors

#	Article	IF	Citations
1	Direct numerical simulation of laboratory experiments in isotropic turbulence. Physics of Fluids, 1998, 10, 2125-2127.	1.6	79
2	Production of aromatics by catalytic fast pyrolysis of cellulose in a bubbling fluidized bed reactor. AIChE Journal, 2014, 60, 1320-1335.	1.8	50
3	Turbulent/non-turbulent interfaces in wakes in stably stratified fluids. Journal of Fluid Mechanics, 2016, 797, .	1.4	42
4	Classical scaling and intermittency in strongly stratified Boussinesq turbulence. Journal of Fluid Mechanics, 2015, 775, 436-463.	1.4	38
5	Robust identification of dynamically distinct regions in stratified turbulence. Journal of Fluid Mechanics, 2016, 807, .	1.4	38
6	Kinetic energy dynamics in forced, homogeneous, and axisymmetric stably stratified turbulence. Journal of Turbulence, 2012, 13, N29.	0.5	37
7	Asymptotic Dynamics of High Dynamic Range Stratified Turbulence. Physical Review Letters, 2019, 122, 194504.	2.9	35
8	Investigation of Modeling for Non-Premixed Turbulent Combustion. Flow, Turbulence and Combustion, 1998, 60, 105-122.	1.4	33
9	The effects of stable stratification on the decay of initially isotropic homogeneous turbulence. Journal of Fluid Mechanics, 2019, 860, 787-821.	1.4	33
10	Predicting turbulence in flows with strong stable stratification. Physics of Fluids, 2006, 18, 066602.	1.6	32
11	Relationship between vertical shear rate and kinetic energy dissipation rate in stably stratified flows. Geophysical Research Letters, 2006, 33, .	1.5	26
12	Re-examining the thermal mixing layer with numerical simulations. Physics of Fluids, 2000, 12, 185-192.	1.6	22
13	Direct numerical simulation of reacting scalar mixing layers. Physics of Fluids, 2001, 13, 1450-1465.	1.6	21
14	Conditional mixing statistics in a self-similar scalar mixing layer. Physics of Fluids, 2005, 17, 095107.	1.6	20
15	Modeling turbulent dissipation at low and moderate Reynolds numbers. Journal of Turbulence, 2006, 7, N69.	0.5	20
16	Testing the Assumptions Underlying Ocean Mixing Methodologies Using Direct Numerical Simulations. Journal of Physical Oceanography, 2019, 49, 2761-2779.	0.7	19
17	Energy dissipation rate surrogates in incompressible Navierâ€"Stokes turbulence. Journal of Fluid Mechanics, 2012, 697, 204-236.	1.4	17
18	A mathematical framework for forcing turbulence applied to horizontally homogeneous stratified flow. Physics of Fluids, 2011, 23, .	1.6	16

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19	Investigation of Hillâ€™s optical turbulence model by means of direct numerical simulation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 2423.	0.8	15
20	Direct numerical simulations of the double scalar mixing layer. Part I: Passive scalar mixing and dissipation. Physics of Fluids, 2006, 18, 067106.	1.6	12
21	Direct numerical simulation and Lagrangian modeling of joint scalar statistics in ternary mixing. Physics of Fluids, 2008, 20, .	1.6	11
22	Pseudo-spectral numerical simulation of miscible fluids with a high density ratio. Computers and Fluids, 2007, 36, 238-247.	1.3	9
23	Area of scalar isosurfaces in homogeneous isotropic turbulence as a function of Reynolds and Schmidt numbers. Journal of Fluid Mechanics, 2020, 883, .	1.4	9
24	A first principles framework to predict the transient performance of latent heat thermal energy storage. Journal of Energy Storage, 2021, 36, 102388.	3.9	7
25	Conditional velocity statistics in the double scalar mixing layer â€“ A mapping closure approach. Combustion Theory and Modelling, 2008, 12, 929-941.	1.0	5
26	Effect of viscous-convective subrange on passive scalar statistics at high Reynolds number. Physical Review Fluids, 2022, 7, .	1.0	4
27	Implications of inertial subrange scaling for stably stratified mixing. Journal of Fluid Mechanics, 2022, 939, .	1.4	3
28	Reynolds and Froude Number Scaling in Stably-Stratified Flows. Fluid Mechanics and Its Applications, 2004, , 71-76.	0.1	2