

Peter E Hamlington

List of Publications by Year in descending order

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54
papers

1,249
citations

394421

19
h-index

361022

35
g-index

56
all docs

56
docs citations

56
times ranked

1032
citing authors

#	ARTICLE	IF	CITATIONS
1	Interactions between turbulence and flames in premixed reacting flows. <i>Physics of Fluids</i> , 2011, 23, .	4.0	164
2	The form and orientation of Langmuir cells for misaligned winds and waves. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	105
3	Langmuirâ€™Submesoscale Interactions: Descriptive Analysis of Multiscale Frontal Spindown Simulations. <i>Journal of Physical Oceanography</i> , 2014, 44, 2249-2272.	1.7	105
4	Effects of submesoscale turbulence on ocean tracers. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 908-933.	2.6	70
5	Direct assessment of vorticity alignment with local and nonlocal strain rates in turbulent flows. <i>Physics of Fluids</i> , 2008, 20, .	4.0	63
6	Spectral kinetic energy transfer in turbulent premixed reacting flows. <i>Physical Review E</i> , 2016, 93, 053115.	2.1	60
7	Local and nonlocal strain rate fields and vorticity alignment in turbulent flows. <i>Physical Review E</i> , 2008, 77, 026303.	2.1	58
8	The cross-scale physical-space transfer of kinetic energy in turbulent premixed flames. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 1967-1975.	3.9	53
9	Structure and dynamics of highly turbulent premixed combustion. <i>Progress in Energy and Combustion Science</i> , 2021, 85, 100900.	31.2	52
10	Surface waves affect frontogenesis. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3597-3624.	2.6	49
11	Intermittency in premixed turbulent reacting flows. <i>Physics of Fluids</i> , 2012, 24, .	4.0	47
12	Reynolds stress closure for nonequilibrium effects in turbulent flows. <i>Physics of Fluids</i> , 2008, 20, .	4.0	37
13	Lagrangian analysis of high-speed turbulent premixed reacting flows: Thermochemical trajectories in hydrogenâ€™air flames. <i>Combustion and Flame</i> , 2017, 186, 193-207.	5.2	31
14	Effects of climate oscillations on wind resource variability in the United States. <i>Geophysical Research Letters</i> , 2015, 42, 145-152.	4.0	30
15	Spatially localized multi-scale energy transfer in turbulent premixed combustion. <i>Journal of Fluid Mechanics</i> , 2018, 848, 78-116.	3.4	30
16	Detonation initiation by compressible turbulence thermodynamic fluctuations. <i>Combustion and Flame</i> , 2020, 213, 172-183.	5.2	28
17	Mid-infrared dual frequency comb spectroscopy for combustion analysis from 2.8 to 5â€™ μm . <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1627-1635.	3.9	28
18	Effects of climate oscillations on wildland fire potential in the continental United States. <i>Geophysical Research Letters</i> , 2017, 44, 7002-7010.	4.0	26

#	ARTICLE	IF	CITATIONS
19	Effects of isothermal stratification strength on vorticity dynamics for single-mode compressible Rayleigh-Taylor instability. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	23
20	Scaling and collapse of conditional velocity structure functions in turbulent premixed flames. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 2527-2535.	3.9	20
21	Modeling of Non-Equilibrium Homogeneous Turbulence in Rapidly Compressed Flows. <i>Flow, Turbulence and Combustion</i> , 2014, 93, 93-124.	2.6	19
22	Autonomic closure for turbulence simulations. <i>Physical Review E</i> , 2016, 93, 031301.	2.1	18
23	OH radical measurements in combustion environments using wavelength modulation spectroscopy and dual-frequency comb spectroscopy near 1491Ånm. <i>Applied Physics B: Lasers and Optics</i> , 2019, 125, 1.	2.2	12
24	Frequency response of periodically sheared homogeneous turbulence. <i>Physics of Fluids</i> , 2009, 21, 055107.	4.0	11
25	Lagrangian analysis of enstrophy dynamics in a highly turbulent premixed flame. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
26	Numerical simulations of buoyancy-driven flows using adaptive mesh refinement: structure and dynamics of a large-scale helium plume. <i>Theoretical and Computational Fluid Dynamics</i> , 2021, 35, 61-91.	2.2	10
27	Parameter estimation for complex thermal-fluid flows using approximate Bayesian computation. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	10
28	Effects of Langmuir Turbulence on Upper Ocean Carbonate Chemistry. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 3030-3048.	3.8	9
29	Particle pair dispersion and eddy diffusivity in a high-speed premixed flame. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 2845-2852.	3.9	9
30	Scaling of the puffing Strouhal number for buoyant jets and plumes. <i>Journal of Fluid Mechanics</i> , 2020, 895, .	3.4	8
31	Nonlocal form of the rapid pressure-strain correlation in turbulent flows. <i>Physical Review E</i> , 2009, 80, 046311.	2.1	7
32	Experimental Development and Computational Optimization of Flat Heat Pipes for CubeSat Applications. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2017, 139, .	1.8	7
33	Evaluation of Wavelet-Based Optical Flow Velocimetry from OH Scalar Fields in Reacting Turbulent Flows. , 2019, , .		6
34	Analysis of turbulent bending moments in tidal current boundary layers. <i>Journal of Renewable and Sustainable Energy</i> , 2015, 7, 063118.	2.0	5
35	Parameter Estimation for Reynolds-Averaged Navier–Stokes Models Using Approximate Bayesian Computation. <i>AIAA Journal</i> , 2021, 59, 4703-4718.	2.6	4
36	Efficient Simulations of Propagating Flames and Fire Suppression Optimization Using Adaptive Mesh Refinement. <i>Fluids</i> , 2021, 6, 323.	1.7	4

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37	Parameter Estimation for a Turbulent Buoyant Jet using Approximate Bayesian Computation. , 2017, , .		3
38	Assessing diffusion model impacts on enstrophy and flame structure in turbulent lean premixed flames. Combustion Theory and Modelling, 2022, 26, 712-727.	1.9	3
39	Parameter Estimation for a Turbulent Buoyant Jet with Rotating Cylinder Using Approximate Bayesian Computation. , 2017, , .		2
40	Characterization of the Buoyant Jet above a Catalytic Combustor Using Wavelength Modulation Spectroscopy. Combustion Science and Technology, 2020, 192, 997-1014.	2.3	2
41	Flow parameter estimation using laser absorption spectroscopy and approximate Bayesian computation. Experiments in Fluids, 2021, 62, 1.	2.4	2
42	Development and Application of a Thin Flat Heat Pipe Design Optimization Tool for Small Satellite Systems. Journal of Electronic Packaging, Transactions of the ASME, 2021, 143, .	1.8	2
43	Optimization for Internal Turbulent Compressible Flows Using Adjoints. , 2017, , .		1
44	Autonomic Closure for Turbulent Flows Using Approximate Bayesian Computation. , 2018, , .		1
45	Turbulence Model Development Using Markov Chain Monte Carlo Approximate Bayesian Computation. , 2019, , .		1
46	BFM17 v1.0: a reduced biogeochemical flux model for upper-ocean biophysical simulations. Geoscientific Model Development, 2021, 14, 2419-2442.	3.6	1
47	Near- and Far-Field Properties of High-Temperature Turbulent Buoyant Jets. , 2017, , .		0
48	Compressible Turbulence Effects on Premixed Autoignition. , 2017, , .		0
49	Development and Application of a Thin Flat Heat Pipe Design Optimization Tool for Small Satellite Systems. , 2019, , .		0
50	Novel Lagrangian-Particle Tracking Method for Highly Compressible, Turbulent, Reacting Flows. , 2019, , .		0
51	Lagrangian Chemical Explosive Mode Analysis of Highly Turbulent Premixed Flames. , 2019, , .		0
52	Benchmark Direct Numerical Simulations with Lagrangian Tracers for Evaluating Combustion Diagnostics Algorithms. , 2019, , .		0
53	A scaling law for the required transition zone depth in hybrid LES-DNS. Journal of Turbulence, 2020, 21, 722-734.	1.4	0
54	Validation of Computationally Efficient Simulations of Douglas Fir Pyrolysis and Combustion Using Time-Resolved Frequency Comb Laser Measurements. Frontiers in Forests and Global Change, 2022, 5, .	2.3	0