

# 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	Validation of Computationally Efficient Simulations of Douglas Fir Pyrolysis and Combustion Using Time-Resolved Frequency Comb Laser Measurements. <i>Frontiers in Forests and Global Change</i> , 2022, 5, .	2.3	0
2	Assessing diffusion model impacts on enstrophy and flame structure in turbulent lean premixed flames. <i>Combustion Theory and Modelling</i> , 2022, 26, 712-727.	1.9	3
3	Mid-infrared dual frequency comb spectroscopy for combustion analysis from 2.8 to 5 $\mu\text{m}$ . <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1627-1635.	3.9	28
4	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
5	Flow parameter estimation using laser absorption spectroscopy and approximate Bayesian computation. <i>Experiments in Fluids</i> , 2021, 62, 1.	2.4	2
6	BFM17 v1.0: a reduced biogeochemical flux model for upper-ocean biophysical simulations. <i>Geoscientific Model Development</i> , 2021, 14, 2419-2442.	3.6	1
7	Lagrangian analysis of enstrophy dynamics in a highly turbulent premixed flame. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
8	Structure and dynamics of highly turbulent premixed combustion. <i>Progress in Energy and Combustion Science</i> , 2021, 85, 100900.	31.2	52
9	Parameter Estimation for Reynolds-Averaged Navier-Stokes Models Using Approximate Bayesian Computation. <i>AIAA Journal</i> , 2021, 59, 4703-4718.	2.6	4
10	Efficient Simulations of Propagating Flames and Fire Suppression Optimization Using Adaptive Mesh Refinement. <i>Fluids</i> , 2021, 6, 323.	1.7	4
11	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
12	Development and Application of a Thin Flat Heat Pipe Design Optimization Tool for Small Satellite Systems. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2021, 143, .	1.8	2
13	Characterization of the Buoyant Jet above a Catalytic Combustor Using Wavelength Modulation Spectroscopy. <i>Combustion Science and Technology</i> , 2020, 192, 997-1014.	2.3	2
14	Detonation initiation by compressible turbulence thermodynamic fluctuations. <i>Combustion and Flame</i> , 2020, 213, 172-183.	5.2	28
15	A scaling law for the required transition zone depth in hybrid LES-DNS. <i>Journal of Turbulence</i> , 2020, 21, 722-734.	1.4	0
16	Scaling of the puffing Strouhal number for buoyant jets and plumes. <i>Journal of Fluid Mechanics</i> , 2020, 895, .	3.4	8
17	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
18	Development and Application of a Thin Flat Heat Pipe Design Optimization Tool for Small Satellite Systems. , 2019, , .		0

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19	OH radical measurements in combustion environments using wavelength modulation spectroscopy and dual-frequency comb spectroscopy near 1491Ånm. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	12
20	Novel Lagrangian-Particle Tracking Method for Highly Compressible, Turbulent, Reacting Flows. , 2019, , .		0
21	Turbulence Model Development Using Markov Chain Monte Carlo Approximate Bayesian Computation. , 2019, , .		1
22	Evaluation of Wavelet-Based Optical Flow Velocimetry from OH Scalar Fields in Reacting Turbulent Flows. , 2019, , .		6
23	Lagrangian Chemical Explosive Mode Analysis of Highly Turbulent Premixed Flames. , 2019, , .		0
24	Benchmark Direct Numerical Simulations with Lagrangian Tracers for Evaluating Combustion Diagnostics Algorithms. , 2019, , .		0
25	Effects of isothermal stratification strength on vorticity dynamics for single-mode compressible Rayleigh-Taylor instability. Physical Review Fluids, 2019, 4, .	2.5	23
26	Autonomic Closure for Turbulent Flows Using Approximate Bayesian Computation. , 2018, , .		1
27	Effects of Langmuir Turbulence on Upper Ocean Carbonate Chemistry. Journal of Advances in Modeling Earth Systems, 2018, 10, 3030-3048.	3.8	9
28	Spatially localized multi-scale energy transfer in turbulent premixed combustion. Journal of Fluid Mechanics, 2018, 848, 78-116.	3.4	30
29	Parameter estimation for complex thermal-fluid flows using approximate Bayesian computation. Physical Review Fluids, 2018, 3, .	2.5	10
30	Parameter Estimation for a Turbulent Buoyant Jet using Approximate Bayesian Computation. , 2017, , .		3
31	Optimization for Internal Turbulent Compressible Flows Using Adjoints. , 2017, , .		1
32	Lagrangian analysis of high-speed turbulent premixed reacting flows: Thermochemical trajectories in hydrogen-air flames. Combustion and Flame, 2017, 186, 193-207.	5.2	31
33	Near- and Far-Field Properties of High-Temperature Turbulent Buoyant Jets. , 2017, , .		0
34	Effects of climate oscillations on wildland fire potential in the continental United States. Geophysical Research Letters, 2017, 44, 7002-7010.	4.0	26
35	Experimental Development and Computational Optimization of Flat Heat Pipes for CubeSat Applications. Journal of Electronic Packaging, Transactions of the ASME, 2017, 139, .	1.8	7
36	Parameter Estimation for a Turbulent Buoyant Jet with Rotating Cylinder Using Approximate Bayesian Computation. , 2017, , .		2

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37	Compressible Turbulence Effects on Premixed Autoignition. , 2017, , .		0
38	The cross-scale physical-space transfer of kinetic energy in turbulent premixed flames. Proceedings of the Combustion Institute, 2017, 36, 1967-1975.	3.9	53
39	Autonomic closure for turbulence simulations. Physical Review E, 2016, 93, 031301.	2.1	18
40	Spectral kinetic energy transfer in turbulent premixed reacting flows. Physical Review E, 2016, 93, 053115.	2.1	60
41	Effects of submesoscale turbulence on ocean tracers. Journal of Geophysical Research: Oceans, 2016, 121, 908-933.	2.6	70
42	Surface waves affect frontogenesis. Journal of Geophysical Research: Oceans, 2016, 121, 3597-3624.	2.6	49
43	Analysis of turbulent bending moments in tidal current boundary layers. Journal of Renewable and Sustainable Energy, 2015, 7, 063118.	2.0	5
44	Effects of climate oscillations on wind resource variability in the United States. Geophysical Research Letters, 2015, 42, 145-152.	4.0	30
45	Langmuirâ€™Submesoscale Interactions: Descriptive Analysis of Multiscale Frontal Spindown Simulations. Journal of Physical Oceanography, 2014, 44, 2249-2272.	1.7	105
46	Modeling of Non-Equilibrium Homogeneous Turbulence in Rapidly Compressed Flows. Flow, Turbulence and Combustion, 2014, 93, 93-124.	2.6	19
47	Intermittency in premixed turbulent reacting flows. Physics of Fluids, 2012, 24, .	4.0	47
48	The form and orientation of Langmuir cells for misaligned winds and waves. Journal of Geophysical Research, 2012, 117, .	3.3	105
49	Interactions between turbulence and flames in premixed reacting flows. Physics of Fluids, 2011, 23, .	4.0	164
50	Nonlocal form of the rapid pressure-strain correlation in turbulent flows. Physical Review E, 2009, 80, 046311.	2.1	7
51	Frequency response of periodically sheared homogeneous turbulence. Physics of Fluids, 2009, 21, 055107.	4.0	11
52	Reynolds stress closure for nonequilibrium effects in turbulent flows. Physics of Fluids, 2008, 20, .	4.0	37
53	Direct assessment of vorticity alignment with local and nonlocal strain rates in turbulent flows. Physics of Fluids, 2008, 20, .	4.0	63
54	Local and nonlocal strain rate fields and vorticity alignment in turbulent flows. Physical Review E, 2008, 77, 026303.	2.1	58