

Edwin A Cowen

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

1,556
citations

361045

20
h-index

301761

39
g-index

55
all docs

55
docs citations

55
times ranked

1290
citing authors

#	ARTICLE	IF	CITATIONS
1	A hybrid digital particle tracking velocimetry technique. <i>Experiments in Fluids</i> , 1997, 22, 199-211.	1.1	325
2	Boundary layer flow and bed shear stress under a solitary wave. <i>Journal of Fluid Mechanics</i> , 2007, 574, 449-463.	1.4	108
3	Particle Image Velocimetry Measurements within a Laboratory-Generated Swash Zone. <i>Journal of Engineering Mechanics - ASCE</i> , 2003, 129, 1119-1129.	1.6	107
4	A random-jet-stirred turbulence tank. <i>Journal of Fluid Mechanics</i> , 2008, 604, 1-32.	1.4	93
5	A $k-\epsilon$ turbulence model based on the scales of vertical shear and stem wakes valid for emergent and submerged vegetated flows. <i>Journal of Fluid Mechanics</i> , 2012, 701, 1-39.	1.4	80
6	Laboratory observations of mean flows under surface gravity waves. <i>Journal of Fluid Mechanics</i> , 2007, 573, 131-147.	1.4	67
7	A single-camera coupled PTV-LIF technique. <i>Experiments in Fluids</i> , 2001, 31, 63-73.	1.1	55
8	The direct and indirect measurement of boundary stress and drag on individual and complex arrays of elements. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	51
9	A random synthetic jet array driven turbulence tank. <i>Experiments in Fluids</i> , 2004, 37, 613-615.	1.1	44
10	Plume dispersion in a stratified, near-coastal flow: measurements and modeling. <i>Continental Shelf Research</i> , 2000, 20, 637-663.	0.9	42
11	An efficient anti-aliasing spectral continuous window shifting technique for PIV. <i>Experiments in Fluids</i> , 2005, 38, 197-208.	1.1	42
12	QUANTITATIVE IMAGING TECHNIQUES AND THEIR APPLICATION TO WAVY FLOWS. <i>Series on Quality, Reliability and Engineering Statistics</i> , 2004, , 1-49.	0.2	38
13	Residence time of a freshwater embayment connected to a large lake. <i>Limnology and Oceanography</i> , 2005, 50, 1638-1653.	1.6	36
14	Evolution of the turbulence structure in the surf and swash zones. <i>Journal of Fluid Mechanics</i> , 2010, 644, 193-216.	1.4	36
15	Chemical Plume Tracing. <i>Environmental Fluid Mechanics</i> , 2002, 2, 1-7.	0.7	34
16	Turbulent Prandtl Number in Neutrally Buoyant Turbulent Round Jet. <i>Journal of Engineering Mechanics - ASCE</i> , 2002, 128, 1082-1087.	1.6	33
17	The Information Content of a Scalar Plume – A Plume Tracing Perspective. <i>Environmental Fluid Mechanics</i> , 2002, 2, 9-34.	0.7	33
18	Remote monitoring of volumetric discharge employing bathymetry determined from surface turbulence metrics. <i>Water Resources Research</i> , 2016, 52, 2178-2193.	1.7	32

#	ARTICLE	IF	CITATIONS
19	Turbulent transport of a high-Schmidt-number scalar near an air-water interface. <i>Journal of Fluid Mechanics</i> , 2013, 731, 259-287.	1.4	22
20	Estimating bed shear stress from remotely measured surface turbulent dissipation fields in open channel flows. <i>Water Resources Research</i> , 2017, 53, 1982-1996.	1.7	21
21	Longitudinal vortices beneath breaking waves. <i>Journal of Geophysical Research</i> , 1995, 100, 16211.	3.3	20
22	Exchange between a freshwater embayment and a large lake through a long, shallow channel. <i>Limnology and Oceanography</i> , 2005, 50, 169-183.	1.6	20
23	An insitu borescopic quantitative imaging profiler for the measurement of high concentration sediment velocity. <i>Experiments in Fluids</i> , 2010, 49, 77-88.	1.1	20
24	Vortex shedding and evolution induced by a solitary wave propagating over a submerged cylindrical structure. <i>Journal of Fluids and Structures</i> , 2015, 52, 181-198.	1.5	20
25	Tripton, trophic state metrics, and near-shore versus pelagic zone responses to external loads in Cayuga Lake, New York, U.S.A.. <i>Fundamental and Applied Limnology</i> , 2010, 178, 1-15.	0.4	18
26	Remote determination of the velocity index and mean streamwise velocity profiles. <i>Water Resources Research</i> , 2017, 53, 7521-7535.	1.7	18
27	Instantaneous River-Wide Water Surface Velocity Field Measurements at Centimeter Scales Using Infrared Quantitative Image Velocimetry. <i>Water Resources Research</i> , 2021, 57, e2020WR029279.	1.7	16
28	Simultaneous velocity and passive scalar concentration measurements in low Reynolds number neutrally buoyant turbulent round jets. <i>Experiments in Fluids</i> , 2008, 44, 865-872.	1.1	15
29	A depth-of-field limited particle image velocimetry technique applied to oscillatory boundary layer flow over a porous bed. <i>Experiments in Fluids</i> , 2002, 33, 47-53.	1.1	11
30	Turbulent dissipation estimates from pulse coherent doppler instruments. , 2011, , .		11
31	Testing and application of a two-dimensional hydrothermal/transport model for a long, deep, and narrow lake with moderate Burger number. <i>Inland Waters</i> , 2015, 5, 387-402.	1.1	10
32	An Upwelling Event at Onondaga Lake, NY: Characterization, Impact and Recurrence*. <i>Hydrobiologia</i> , 2004, 511, 185-199.	1.0	9
33	Relative dispersion of a scalar plume in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2010, 661, 412-445.	1.4	9
34	Turbulent boundary layers absent mean shear. <i>Journal of Fluid Mechanics</i> , 2018, 835, 217-251.	1.4	9
35	Sediment suspension and bed morphology in a mean shear free turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2020, 894, .	1.4	9
36	Quantitative Imaging of CO2 Transfer at an Unsheared Free Surface. <i>Environmental Science and Engineering</i> , 2007, , 43-57.	0.1	8

#	ARTICLE	IF	CITATIONS
37	Development of a novel, robust, sustainable and low cost self-powered water pump for use in free-flowing liquid streams. <i>Renewable Energy</i> , 2016, 91, 466-476.	4.3	7
38	Remote Estimation of Turbulence Intensity Variation in Open Channels. <i>Journal of Hydraulic Engineering</i> , 2020, 146, 04020062.	0.7	4
39	A Method for Analysis of Spatial Uncertainty in Image Based Surface Velocimetry. <i>Frontiers in Water</i> , 2022, 4, .	1.0	4
40	On the realization of a second buckling mode in a periodically-constrained heavy elastica. <i>Extreme Mechanics Letters</i> , 2018, 21, 76-81.	2.0	3
41	Near-Field Model for a High-Momentum Negatively Buoyant Line Source Within a Three-Dimensional Hydrostatic Lake Model. <i>Water Resources Research</i> , 2019, 55, 1337-1365.	1.7	3
42	Can you accelerate wind turbine wake decay with unsteady operation?. , 2019, , .		3
43	Design of a paired-weir system for experimental manipulation of environmental flows in streams. <i>Journal of Ecohydraulics</i> , 2020, , 1-8.	1.6	3
44	WATER WAVE INDUCED BOUNDARY LAYER FLOWS ABOVE A RIPPLE BED. <i>Series on Quality, Reliability and Engineering Statistics</i> , 2004, , 81-117.	0.2	2
45	A high-accuracy torque transducer for small-scale wind and hydrokinetic turbine experiments. <i>Measurement Science and Technology</i> , 2019, 30, 105005.	1.4	2
46	Simultaneous LIF and PIV Measurements of a Laboratory Modeled Coastal Plume. , 2000, , 1.		1
47	Design and Characterization of a Turbulence Chamber for Scalar Flux Measurements at a Sediment-Water Interface. <i>Journal of Environmental Engineering, ASCE</i> , 2015, 141, .	0.7	1
48	LARGE-SCALE TURBULENCE STRUCTURES OVER AN IMMOBILE GRAVEL-BED INSIDE THE SURF ZONE. , 2003, , .		1
49	4. Simultaneous velocity and concentration fields in a turbulent round jet. <i>Journal of Visualization</i> , 2000, 3, 98-98.	1.1	0
50	Acceleration and Pressure Measurements during Wave-Structure Interactions. , 2001, , 2169.		0
51	A Near-Real-Time Web-Based Robotic Monitoring Station on Cayuga Lake, New York. , 2002, , 1.		0
52	Water Wave Measurements. <i>Measurement Science and Technology</i> , 2005, 16, .	1.4	0
53	Boundary layer flow and bed shear stress under a solitary wave – CORRIGENDUM. <i>Journal of Fluid Mechanics</i> , 2014, 753, 553-553.	1.4	0
54	Promotion of Instability of a Sinusoidally Deformed Flexible Plate and its Transition to Oscillatory Motions. <i>Physical Review Applied</i> , 2020, 13, .	1.5	0