Edwin A Cowen

List of Publications by Year
in descending order

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 Method for Analysis of Spatial Uncertainty in Image Based Surface Velocimetry. Frontiers in Water, 2022, 4, .	1.0	4
2	Instantaneous Riverâ€Wide Water Surface Velocity Field Measurements at Centimeter Scales Using Infrared Quantitative Image Velocimetry. Water Resources Research, 2021, 57, e2020WR029279.	1.7	16
3	Remote Estimation of Turbulence Intensity Variation in Open Channels. Journal of Hydraulic Engineering, 2020, 146, 04020062.	0.7	4
4	Design of a paired-weir system for experimental manipulation of environmental flows in streams. Journal of Ecohydraulics, 2020, , 1-8.	1.6	3
5	Sediment suspension and bed morphology in a mean shear free turbulent boundary layer. Journal of Fluid Mechanics, 2020, 894, .	1.4	9
6	Promotion of Instability of a Sinusoidally Deformed Flexible Plate and its Transition to Oscillatory Motions. Physical Review Applied, 2020, 13, .	1.5	0
7	A high-accuracy torque transducer for small-scale wind and hydrokinetic turbine experiments. Measurement Science and Technology, 2019, 30, 105005.	1.4	2
8	Nearâ€Field Model for a Highâ€Momentum Negatively Buoyant Line Source Within a Threeâ€Dimensional Hydrostatic Lake Model. Water Resources Research, 2019, 55, 1337-1365.	1.7	3
9	Can you accelerate wind turbine wake decay with unsteady operation?. , 2019, , .		3
10	On the realization of a second buckling mode in a periodically-constrained heavy elastica. Extreme Mechanics Letters, 2018, 21, 76-81.	2.0	3
11	Turbulent boundary layers absent mean shear. Journal of Fluid Mechanics, 2018, 835, 217-251.	1.4	9
12	Estimating bed shear stress from remotely measured surface turbulent dissipation fields in open channel flows. Water Resources Research, 2017, 53, 1982-1996.	1.7	21
13	Remote determination of the velocity index and mean streamwise velocity profiles. Water Resources Research, 2017, 53, 7521-7535.	1.7	18
14	Remote monitoring of volumetric discharge employing bathymetry determined from surface turbulence metrics. Water Resources Research, 2016, 52, 2178-2193.	1.7	32
15	Development of a novel, robust, sustainable and low cost self-powered water pump for use in free-flowing liquid streams. Renewable Energy, 2016, 91, 466-476.	4.3	7
16	Testing and application of a two-dimensional hydrothermal/transport model for a long, deep, and narrow lake with moderate Burger number. Inland Waters, 2015, 5, 387-402.	1.1	10
17	Design and Characterization of a Turbulence Chamber for Scalar Flux Measurements at a Sediment-Water Interface. Journal of Environmental Engineering, ASCE, 2015, 141, .	0.7	1
18	Vortex shedding and evolution induced by a solitary wave propagating over a submerged cylindrical structure. Journal of Fluids and Structures, 2015, 52, 181-198.	1.5	20

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19	Boundary layer flow and bed shear stress under a solitary wave â€“ CORRIGENDUM. Journal of Fluid Mechanics, 2014, 753, 553-553.	1.4	0
20	The direct and indirect measurement of boundary stress and drag on individual and complex arrays of elements. Experiments in Fluids, 2013, 54, 1.	1.1	51
21	Turbulent transport of a high-Schmidt-number scalar near an airâ€“water interface. Journal of Fluid Mechanics, 2013, 731, 259-287.	1.4	22
22	A kâ€“Îµ turbulence model based on the scales of vertical shear and stem wakes valid for emergent and submerged vegetated flows. Journal of Fluid Mechanics, 2012, 701, 1-39.	1.4	80
23	Turbulent dissipation estimates from pulse coherent doppler instruments. , 2011, , .		11
24	Tripton, trophic state metrics, and near-shore versus pelagic zone responses to external loads in Cayuga Lake, New York, U.S.A.. Fundamental and Applied Limnology, 2010, 178, 1-15.	0.4	18
25	Evolution of the turbulence structure in the surf and swash zones. Journal of Fluid Mechanics, 2010, 644, 193-216.	1.4	36
26	Relative dispersion of a scalar plume in a turbulent boundary layer. Journal of Fluid Mechanics, 2010, 661, 412-445.	1.4	9
27	An insitu borescopic quantitative imaging profiler for the measurement of high concentration sediment velocity. Experiments in Fluids, 2010, 49, 77-88.	1.1	20
28	Simultaneous velocity and passive scalar concentration measurements in low Reynolds number neutrally buoyant turbulent round jets. Experiments in Fluids, 2008, 44, 865-872.	1.1	15
29	A random-jet-stirred turbulence tank. Journal of Fluid Mechanics, 2008, 604, 1-32.	1.4	93
30	Boundary layer flow and bed shear stress under a solitary wave. Journal of Fluid Mechanics, 2007, 574, 449-463.	1.4	108
31	Laboratory observations of mean flows under surface gravity waves. Journal of Fluid Mechanics, 2007, 573, 131-147.	1.4	67
32	Quantitative Imaging of CO2 Transfer at an Unsheared Free Surface. Environmental Science and Engineering, 2007, , 43-57.	0.1	8
33	Water Wave Measurements. Measurement Science and Technology, 2005, 16, .	1.4	0
34	Exchange between a freshwater embayment and a large lake through a long, shallow channel. Limnology and Oceanography, 2005, 50, 169-183.	1.6	20
35	Residence time of a freshwater embayment connected to a large lake. Limnology and Oceanography, 2005, 50, 1638-1653.	1.6	36
36	An efficient anti-aliasing spectral continuous window shifting technique for PIV. Experiments in Fluids, 2005, 38, 197-208.	1.1	42

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37	QUANTITATIVE IMAGING TECHNIQUES AND THEIR APPLICATION TO WAVY FLOWS. Series on Quality, Reliability and Engineering Statistics, 2004, , 1-49.	0.2	38
38	WATER WAVE INDUCED BOUNDARY LAYER FLOWS ABOVE A RIPPLE BED. Series on Quality, Reliability and Engineering Statistics, 2004, , 81-117.	0.2	2
39	An Upwelling Event at Onondaga Lake, NY: Characterization, Impact and Recurrence*. Hydrobiologia, 2004, 511, 185-199.	1.0	9
40	A random synthetic jet array driven turbulence tank. Experiments in Fluids, 2004, 37, 613-615.	1.1	44
41	Particle Image Velocimetry Measurements within a Laboratory-Generated Swash Zone. Journal of Engineering Mechanics - ASCE, 2003, 129, 1119-1129.	1.6	107
42	LARGE-SCALE TURBULENCE STRUCTURES OVER AN IMMOBILE GRAVEL-BED INSIDE THE SURF ZONE. , 2003, , .		1
43	Turbulent Prandtl Number in Neutrally Buoyant Turbulent Round Jet. Journal of Engineering Mechanics - ASCE, 2002, 128, 1082-1087.	1.6	33
44	A Near-Real-Time Web-Based Robotic Monitoring Station on Cayuga Lake, New York. , 2002, , 1.		0
45	A depth-of-field limited particle image velocimetry technique applied to oscillatory boundary layer flow over a porous bed. Experiments in Fluids, 2002, 33, 47-53.	1.1	11
46	The Information Content of a Scalar Plume â€“ A Plume Tracing Perspective. Environmental Fluid Mechanics, 2002, 2, 9-34.	0.7	33
47	Chemical Plume Tracing. Environmental Fluid Mechanics, 2002, 2, 1-7.	0.7	34
48	Acceleration and Pressure Measurements during Wave-Structure Interactions. , 2001, , 2169.		0
49	A single-camera coupled PTV-LIF technique. Experiments in Fluids, 2001, 31, 63-73.	1.1	55
50	Simultaneous LIF and PIV Measurements of a Laboratory Modeled Coastal Plume. , 2000, , 1.		1
51	4. Simultaneous velocity and concentration fields in a turbulent round jet. Journal of Visualization, 2000, 3, 98-98.	1.1	0
52	Plume dispersion in a stratified, near-coastal flow: measurements and modeling. Continental Shelf Research, 2000, 20, 637-663.	0.9	42
53	A hybrid digital particle tracking velocimetry technique. Experiments in Fluids, 1997, 22, 199-211.	1.1	325
54	Longitudinal vortices beneath breaking waves. Journal of Geophysical Research, 1995, 100, 16211.	3.3	20