

W Kendall Melville

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60
papers

3,058
citations

30
h-index

55
g-index

64
ext. papers

3,514
ext. citations

4.2
avg, IF

5.68
L-index

#	Paper	IF	Citations
60	LONG NONLINEAR INTERNAL WAVES. <i>Annual Review of Fluid Mechanics</i> , 2006 , 38, 395-425	2.2	522
59	Distribution of breaking waves at the ocean surface. <i>Nature</i> , 2002 , 417, 58-63	50.4	182
58	The velocity field under breaking waves: coherent structures and turbulence. <i>Journal of Fluid Mechanics</i> , 2002 , 454, 203-233	3.7	172
57	Surface gravity wave effects in the oceanic boundary layer: large-eddy simulation with vortex force and stochastic breakers. <i>Journal of Fluid Mechanics</i> , 2007 , 593, 405-452	3.7	171
56	Inertial scaling of dissipation in unsteady breaking waves. <i>Journal of Fluid Mechanics</i> , 2008 , 611, 307-332	3.7	107
55	Experiments on the stability and transition of wind-driven water surfaces. <i>Journal of Fluid Mechanics</i> , 2001 , 446, 25-65	3.7	103
54	Air entrainment and bubble statistics in breaking waves. <i>Journal of Fluid Mechanics</i> , 2016 , 801, 91-129	3.7	101
53	The oceanic boundary layer driven by wave breaking with stochastic variability. Part 1. Direct numerical simulations. <i>Journal of Fluid Mechanics</i> , 2004 , 507, 143-174	3.7	99
52	Airborne Observations of Fetch-Limited Waves in the Gulf of Tehuantepec. <i>Journal of Physical Oceanography</i> , 2010 , 40, 441-465	2.4	92
51	Laboratory measurements of the generation and evolution of Langmuir circulations. <i>Journal of Fluid Mechanics</i> , 1998 , 364, 31-58	3.7	84
50	Field Measurements of Surface and Near-Surface Turbulence in the Presence of Breaking Waves. <i>Journal of Physical Oceanography</i> , 2015 , 45, 943-965	2.4	74
49	Field measurements and scaling of ocean surface wave-breaking statistics. <i>Geophysical Research Letters</i> , 2013 , 40, 3074-3079	4.9	69
48	Transient Evolution of Langmuir Turbulence in Ocean Boundary Layers Driven by Hurricane Winds and Waves. <i>Journal of Physical Oceanography</i> , 2012 , 42, 1959-1980	2.4	68
47	Spectral Energy Dissipation due to Surface Wave Breaking. <i>Journal of Physical Oceanography</i> , 2012 , 42, 1421-1444	2.4	64
46	Nonlinear gravity-capillary waves with forcing and dissipation. <i>Journal of Fluid Mechanics</i> , 1998 , 354, 1-42	3.7	63
45	Capillary effects on wave breaking. <i>Journal of Fluid Mechanics</i> , 2015 , 769, 541-569	3.7	60
44	Observations of Wave Breaking Kinematics in Fetch-Limited Seas. <i>Journal of Physical Oceanography</i> , 2010 , 40, 2575-2604	2.4	57

43	The Analysis of Sea Surface Imagery for Whitecap Kinematics. <i>Journal of Atmospheric and Oceanic Technology</i> , 2011 , 28, 219-243	2	50
42	Turbulence and mixing in unsteady breaking surface waves. <i>Journal of Fluid Mechanics</i> , 2009 , 628, 85-119,7	3.7	46
41	Wave-Coherent Airflow and Critical Layers over Ocean Waves. <i>Journal of Physical Oceanography</i> , 2013 , 43, 2156-2172	2.4	44
40	Observations of Surface Wave-Current Interaction. <i>Journal of Physical Oceanography</i> , 2017 , 47, 615-632	2.4	41
39	Development and Testing of Instrumentation for UAV-Based Flux Measurements within Terrestrial and Marine Atmospheric Boundary Layers. <i>Journal of Atmospheric and Oceanic Technology</i> , 2013 , 30, 1295-1319	2	41
38	An Integrated System for the Study of Wind-Wave Source Terms in Finite-Depth Water. <i>Journal of Atmospheric and Oceanic Technology</i> , 2005 , 22, 814-831	2	38
37	Measurements of Ocean Surface Turbulence and Wave-Turbulence Interactions. <i>Journal of Physical Oceanography</i> , 2009 , 39, 2310-2323	2.4	37
36	An experimental and numerical study of parasitic capillary waves. <i>Physics of Fluids</i> , 1998 , 10, 1315-1323	4.4	37
35	Measurements of the Directional Spectrum across the Equilibrium Saturation Ranges of Wind-Generated Surface Waves. <i>Journal of Physical Oceanography</i> , 2017 , 47, 2123-2138	2.4	36
34	Lagrangian transport by breaking surface waves. <i>Journal of Fluid Mechanics</i> , 2017 , 829, 364-391	3.7	33
33	Wave-Coherent Air-Sea Heat Flux. <i>Journal of Physical Oceanography</i> , 2008 , 38, 788-802	2.4	32
32	Gas Transfer by Breaking Waves. <i>Geophysical Research Letters</i> , 2018 , 45, 10,482-10,492	4.9	32
31	A Portable Airborne Scanning Lidar System for Ocean and Coastal Applications. <i>Journal of Atmospheric and Oceanic Technology</i> , 2009 , 26, 2626-2641	2	31
30	Vortex generation by deep-water breaking waves. <i>Journal of Fluid Mechanics</i> , 2013 , 734, 198-218	3.7	30
29	Numerical Modeling of Fetch-Limited Waves in the Gulf of Tehuantepec. <i>Journal of Physical Oceanography</i> , 2010 , 40, 466-486	2.4	30
28	The Use of Ship-Launched Fixed-Wing UAVs for Measuring the Marine Atmospheric Boundary Layer and Ocean Surface Processes. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016 , 33, 2029-2052	2	27
27	Infrared Techniques for Measuring Ocean Surface Processes. <i>Journal of Atmospheric and Oceanic Technology</i> , 2008 , 25, 307-326	2	27
26	Air entrainment by breaking waves. <i>Geophysical Research Letters</i> , 2017 , 44, 3779-3787	4.9	26

25	Laboratory study of polarized microwave scattering by surface waves at grazing incidence: the influence of long waves. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1996 , 34, 1331-1342	8.1	26
24	The Modular Aerial Sensing System. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016 , 33, 1169-1184		25
23	Sound-speed measurements in the surface-wave layer. <i>Journal of the Acoustical Society of America</i> , 1997 , 102, 2607-2625	2.2	23
22	Current generation by deep-water breaking waves. <i>Journal of Fluid Mechanics</i> , 2016 , 803, 275-291	3.7	21
21	Hydraulic jumps at boundaries in rotating fluids. <i>Journal of Fluid Mechanics</i> , 1996 , 324, 55-82	3.7	20
20	Autonomous Surface Vehicle Measurements of the Ocean's Response to Tropical Cyclone Freda. <i>Journal of Atmospheric and Oceanic Technology</i> , 2014 , 31, 2169-2190	2	19
19	The Effects of Small-Scale Turbulence on Air-Sea Heat Flux. <i>Journal of Physical Oceanography</i> , 2011 , 41, 205-220	2.4	17
18	Evidence of Sea-State Dependence of Aerosol Concentration in the Marine Atmospheric Boundary Layer. <i>Journal of Physical Oceanography</i> , 2017 , 47, 69-84	2.4	16
17	The Influence of Wind Direction on Campbell Scientific CSAT3 and Gill R3-50 Sonic Anemometer Measurements. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016 , 33, 2477-2497	2	16
16	Lagrangian Transport by Nonbreaking and Breaking Deep-Water Waves at the Ocean Surface. <i>Journal of Physical Oceanography</i> , 2019 , 49, 983-992	2.4	15
15	The equilibrium dynamics and statistics of gravity-capillary waves. <i>Journal of Fluid Mechanics</i> , 2015 , 767, 449-466	3.7	15
14	Southern California Coastal Response to the 2015-2016 El Niño. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018 , 123, 3069-3083	3.8	15
13	Dissipation of wave energy and turbulence in a shallow coral reef lagoon. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		14
12	Vertical Profiles of the Wave-Induced Airflow above Ocean Surface Waves. <i>Journal of Physical Oceanography</i> , 2018 , 48, 2901-2922	2.4	14
11	Spatial Statistics of the Sea Surface in Fetch-Limited Conditions. <i>Journal of Physical Oceanography</i> , 2011 , 41, 1821-1841	2.4	12
10	Wave slope and wave age effects in measurements of electromagnetic bias. <i>Journal of Geophysical Research</i> , 2004 , 109,		12
9	Wave modulation: the geometry, kinematics, and dynamics of surface-wave packets. <i>Journal of Fluid Mechanics</i> , 2016 , 803, 292-312	3.7	10
8	Electromagnetic bias estimates based on TOPEX, buoy, and wave model data. <i>Journal of Geophysical Research</i> , 2003 , 108,		10

7	Measuring Turbulent Kinetic Energy Dissipation at a Wavy Sea Surface. <i>Journal of Atmospheric and Oceanic Technology</i> , 2015 , 32, 1498-1514	2	9
6	Airborne lidar measurements of wave energy dissipation in a coral reef lagoon system. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		6
5	Airborne Measurements of Surface Wind and Slope Statistics over the Ocean. <i>Journal of Physical Oceanography</i> , 2019 , 49, 2799-2814	2.4	5
4	Focusing deep-water surface gravity wave packets: wave breaking criterion in a simplified model. <i>Journal of Fluid Mechanics</i> , 2019 , 873, 238-259	3.7	5
3	Laboratory studies of Lagrangian transport by breaking surface waves. <i>Journal of Fluid Mechanics</i> , 2019 , 876,	3.7	5
2	A Model of Strongly Forced Wind Waves. <i>Journal of Physical Oceanography</i> , 2009 , 39, 2502-2522	2.4	1
1	Wind-Wave Breaking. <i>Procedia IUTAM</i> , 2018 , 26, 30-42		1