

William R Young

List of Publications by Year in descending order

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71
papers

4,313
citations

117453

34
h-index

106150

65
g-index

72
all docs

72
docs citations

72
times ranked

2398
citing authors

#	ARTICLE	IF	CITATIONS
1	Homogenization of potential vorticity in planetary gyres. <i>Journal of Fluid Mechanics</i> , 1982, 122, 347.	1.4	384
2	How rapidly is a passive scalar mixed within closed streamlines?. <i>Journal of Fluid Mechanics</i> , 1983, 133, 133-145.	1.4	316
3	Inelastic collapse and clumping in a one-dimensional granular medium. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 496-504.	1.6	305
4	Evolution of vortex statistics in two-dimensional turbulence. <i>Physical Review Letters</i> , 1991, 66, 2735-2737.	2.9	248
5	Shear-Flow Dispersion, Internal Waves and Horizontal Mixing in the Ocean. <i>Journal of Physical Oceanography</i> , 1982, 12, 515-527.	0.7	239
6	Reproductive pair correlations and the clustering of organisms. <i>Nature</i> , 2001, 412, 328-331.	13.7	190
7	Propagation of near-inertial oscillations through a geostrophic flow. <i>Journal of Marine Research</i> , 1997, 55, 735-766.	0.3	164
8	Zonostrophic Instability. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 1633-1656.	0.6	155
9	Kinetics of a one-dimensional granular medium in the quasielastic limit. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993, 5, 34-45.	1.6	143
10	Horizontal convection is non-turbulent. <i>Journal of Fluid Mechanics</i> , 2002, 466, 205-214.	1.4	121
11	Dynamics of interfaces and layers in a stratified turbulent fluid. <i>Journal of Fluid Mechanics</i> , 1998, 355, 329-358.	1.4	116
12	An Exact Thickness-Weighted Average Formulation of the Boussinesq Equations. <i>Journal of Physical Oceanography</i> , 2012, 42, 692-707.	0.7	110
13	Tidal conversion at a very steep ridge. <i>Journal of Fluid Mechanics</i> , 2003, 495, 175-191.	1.4	103
14	Tidal Conversion at a Submarine Ridge. <i>Journal of Physical Oceanography</i> , 2006, 36, 1053-1071.	0.7	94
15	Two-Layer Baroclinic Eddy Heat Fluxes: Zonal Flows and Energy Balance. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 3214-3231.	0.6	88
16	Scaling Baroclinic Eddy Fluxes: Vortices and Energy Balance. <i>Journal of Physical Oceanography</i> , 2006, 36, 720-738.	0.7	84
17	Extremal energy properties and construction of stable solutions of the Euler equations. <i>Journal of Fluid Mechanics</i> , 1989, 207, 133-152.	1.4	74
18	Blow-up of unsteady two-dimensional Euler and Navier-Stokes solutions having stagnation-point form. <i>Journal of Fluid Mechanics</i> , 1989, 203, 1-22.	1.4	72

#	ARTICLE	IF	CITATIONS
19	Dynamic Enthalpy, Conservative Temperature, and the Seawater Boussinesq Approximation. <i>Journal of Physical Oceanography</i> , 2010, 40, 394-400.	0.7	68
20	Disturbing vortices. <i>Journal of Fluid Mechanics</i> , 2001, 426, 95-133.	1.4	64
21	Rates, pathways, and end states of nonlinear evolution in decaying two-dimensional turbulence: Scaling theory versus selective decay. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 1314-1316.	1.6	63
22	Multiple equilibria in two-dimensional thermohaline circulation. <i>Journal of Fluid Mechanics</i> , 1992, 241, 291-309.	1.4	61
23	On the interaction of small-scale oceanic internal waves with near-inertial waves. <i>Journal of Fluid Mechanics</i> , 1986, 166, 341.	1.4	58
24	Shear dispersion and anomalous diffusion by chaotic advection. <i>Journal of Fluid Mechanics</i> , 1994, 280, 149-172.	1.4	58
25	Numerical and Analytical Estimates of M2 Tidal Conversion at Steep Oceanic Ridges. <i>Journal of Physical Oceanography</i> , 2006, 36, 1072-1084.	0.7	56
26	Enhanced dispersion of near-inertial waves in an idealized geostrophic flow. <i>Journal of Marine Research</i> , 1998, 56, 1-40.	0.3	51
27	Stimulated generation: extraction of energy from balanced flow by near-inertial waves. <i>Journal of Fluid Mechanics</i> , 2018, 847, 417-451.	1.4	49
28	A three-component model for the coupled evolution of near-inertial waves, quasi-geostrophic flow and the near-inertial second harmonic. <i>Journal of Fluid Mechanics</i> , 2016, 802, 806-837.	1.4	47
29	Available potential energy and buoyancy variance in horizontal convection. <i>Journal of Fluid Mechanics</i> , 2009, 629, 221-230.	1.4	45
30	Near-inertial parametric subharmonic instability. <i>Journal of Fluid Mechanics</i> , 2008, 607, 25-49.	1.4	44
31	Refraction of swell by surface currents. <i>Journal of Marine Research</i> , 2014, 72, 105-126.	0.3	41
32	Dynamics of vorticity defects in shear. <i>Journal of Fluid Mechanics</i> , 1997, 333, 197-230.	1.4	38
33	Generation of surface waves by shear-flow instability. <i>Journal of Fluid Mechanics</i> , 2014, 739, 276-307.	1.4	37
34	Penetration of Wind-Generated Near-Inertial Waves into a Turbulent Ocean. <i>Journal of Physical Oceanography</i> , 2020, 50, 1699-1716.	0.7	37
35	Available potential vorticity and wave-averaged quasi-geostrophic flow. <i>Journal of Fluid Mechanics</i> , 2015, 785, 401-424.	1.4	36
36	Radiative damping of near-inertial oscillations in the mixed layer. <i>Journal of Marine Research</i> , 1999, 57, 561-584.	0.3	34

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37	A two-dimensional vortex condensate at high Reynolds number. <i>Journal of Fluid Mechanics</i> , 2013, 715, 359-388.	1.4	33
38	Some interactions between small numbers of baroclinic, geostrophic vortices. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1985, 33, 35-61.	0.4	31
39	Control of Large-Scale Heat Transport by Small-Scale Mixing. <i>Journal of Physical Oceanography</i> , 2006, 36, 1877-1894.	0.7	30
40	Reynolds Stress and Eddy Diffusivity of \hat{y} -Plane Shear Flows. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 2169-2185.	0.6	27
41	Stratified tidal flow over a tall ridge above and below the turning latitude. <i>Journal of Fluid Mechanics</i> , 2016, 793, 933-957.	1.4	18
42	Radiation of internal waves from groups of surface gravity waves. <i>Journal of Fluid Mechanics</i> , 2017, 829, 280-303.	1.4	18
43	Moist convection drives an upscale energy transfer at Jovian high latitudes. <i>Nature Physics</i> , 2022, 18, 357-361.	6.5	18
44	Directional diffusion of surface gravity wave action by ocean macroturbulence. <i>Journal of Fluid Mechanics</i> , 2020, 890, .	1.4	17
45	The advection-condensation model and water vapour probability density functions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 1561-1572.	1.0	16
46	Diffusion-limited scalar cascades. <i>Journal of Fluid Mechanics</i> , 2003, 482, 91-100.	1.4	14
47	Bounds on dissipation in stress-driven flow. <i>Journal of Fluid Mechanics</i> , 2004, 510, 333-352.	1.4	14
48	A bound on scalar variance for the advection-diffusion equation. <i>Journal of Fluid Mechanics</i> , 2006, 552, 289.	1.4	14
49	Stressed horizontal convection. <i>Journal of Fluid Mechanics</i> , 2012, 692, 317-331.	1.4	14
50	An asymptotic model for the propagation of oceanic internal tides through quasi-geostrophic flow. <i>Journal of Fluid Mechanics</i> , 2017, 828, 779-811.	1.4	13
51	The nonlinear spin-up of a stratified ocean. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1984, 30, 169-197.	0.4	12
52	Direct Observations of Near-Inertial Wave Refraction in a Dipole Vortex. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090375.	1.5	12
53	Refraction and Straining of Near-Inertial Waves by Barotropic Eddies. <i>Journal of Physical Oceanography</i> , 2020, 50, 3439-3454.	0.7	11
54	Fixed-flux convection in a tilted slot. <i>Journal of Fluid Mechanics</i> , 1992, 237, 57-71.	1.4	10

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55	Wave-averaged balance: a simple example. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	10
56	On Galerkin Approximations of the Surface Active Quasigeostrophic Equations. <i>Journal of Physical Oceanography</i> , 2016, 46, 125-139.	0.7	9
57	Beta-plane turbulence above monoscale topography. <i>Journal of Fluid Mechanics</i> , 2017, 827, 415-447.	1.4	9
58	An improved model of near-inertial wave dynamics. <i>Journal of Fluid Mechanics</i> , 2019, 876, 428-448.	1.4	8
59	Polar vortex crystals: Emergence and structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2120486119.	3.3	8
60	Energy-entropy stability of $\hat{\nu}^2$ -plane Kolmogorov flow with drag. <i>Physics of Fluids</i> , 2008, 20, .	1.6	7
61	On the energy of elliptical vortices. <i>Physics of Fluids</i> , 2010, 22, .	1.6	7
62	Improved bounds on horizontal convection. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	1.4	7
63	Dissipative descent: rocking and rolling down an incline. <i>Journal of Fluid Mechanics</i> , 2007, 590, 295-318.	1.4	6
64	Semicompressible Ocean Dynamics. <i>Journal of Physical Oceanography</i> , 2015, 45, 149-156.	0.7	5
65	The Nusselt numbers of horizontal convection. <i>Journal of Fluid Mechanics</i> , 2020, 894, .	1.4	5
66	Dispersion in an unconsolidated porous medium. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 2468-2470.	1.6	4
67	Inertia-gravity waves and geostrophic turbulence. <i>Journal of Fluid Mechanics</i> , 2021, 920, .	1.4	4
68	Stokes drift and its discontents. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022, 380, 20210032.	1.6	3
69	Exciting, unsettling changes in store for physical oceanography. <i>Eos</i> , 1999, 80, 394.	0.1	1
70	Interaction of near-inertial waves with an anticyclonic vortex. <i>Journal of Physical Oceanography</i> , 2021, , .	0.7	1
71	Bounds on dissipation in stress-driven flow in a rotating frame. <i>Journal of Fluid Mechanics</i> , 2005, 540, 373.	1.4	0