Pavel Berloff

List of Publications by Year
in descending order

56 papers	1,482 citations	331670 21 h-index	330143 37 g-index
59 all docs	59 docs citations	59 times ranked	1241 citing authors

#	Article	IF	Citations
1	Lagrangian ocean analysis: Fundamentals and practices. Ocean Modelling, 2018, 121, 49-75.	2.4	313
2	The Turbulent Oscillator: A Mechanism of Low-Frequency Variability of the Wind-Driven Ocean Gyres. Journal of Physical Oceanography, 2007, 37, 2363-2386.	1.7	96
3	Eddy-Induced Particle Dispersion in the Near-Surface North Atlantic. Journal of Physical Oceanography, 2012, 42, 2206-2228.	1.7	88
4	A mechanism of formation of multiple zonal jets in the oceans. Journal of Fluid Mechanics, 2009, 628, 395-425.	3.4	75
5	The Effects of Mesoscale Oceanâ€"Atmosphere Coupling on the Large-Scale Ocean Circulation. Journal of Climate, 2009, 22, 4066-4082.	3.2	55
6	On latency of multiple zonal jets in the oceans. Journal of Fluid Mechanics, 2011, 686, 534-567.	3.4	55
7	A Model of Multiple Zonal Jets in the Oceans: Dynamical and Kinematical Analysis. Journal of Physical Oceanography, 2009, 39, 2711-2734.	1.7	50
8	Role of Eddy Forcing in the Dynamics of Multiple Zonal Jets in a Model of the North Atlantic. Journal of Physical Oceanography, 2009, 39, 1361-1379.	1.7	41
9	Ocean Eddy Dynamics in a Coupled Oceanâ€"Atmosphere Model*. Journal of Physical Oceanography, 2007, 37, 1103-1121.	1.7	40
10	Anisotropic Material Transport by Eddies and Eddy-Driven Currents in a Model of the North Atlantic. Journal of Physical Oceanography, 2009, 39, 3162-3175.	1.7	39
11	Stochastic modeling of decadal variability in ocean gyres. Geophysical Research Letters, 2015, 42, 1543-1553.	4.0	37
12	On Spectral Analysis of Mesoscale Eddies. Part II: Nonlinear Analysis. Journal of Physical Oceanography, 2013, 43, 2528-2544.	1.7	35
13	Properties and Origins of the Anisotropic Eddy-Induced Transport in the North Atlantic. Journal of Physical Oceanography, 2015, 45, 778-791.	1.7	34
14	On Spectral Analysis of Mesoscale Eddies. Part I: Linear Analysis. Journal of Physical Oceanography, 2013, 43, 2505-2527.	1.7	33
15	On the stability of the wind-driven circulation. Journal of Marine Research, 1998, 56, 937-993.	0.3	31
16	Dynamically consistent parameterization of mesoscale eddies. Part I: Simple model. Ocean Modelling, 2015, 87, 1-19.	2.4	31
17	The Dynamics of a Simple Baroclinic Model of the Wind-Driven Circulation. Journal of Physical Oceanography, 1998, 28, 361-388.	1.7	29
18	Dynamically consistent parameterization of mesoscale eddies. Part III: Deterministic approach. Ocean Modelling, 2018, 127, 1-15.	2.4	26

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19	Multiscale Stuart-Landau Emulators: Application to Wind-Driven Ocean Gyres. Fluids, 2018, 3, 21.	1.7	23
20	Dynamical Origin of Low-Frequency Variability in a Highly Nonlinear Midlatitude Coupled Model. Journal of Climate, 2006, 19, 6391-6408.	3.2	22
21	A highly nonlinear coupled mode of decadal variability in a mid-latitude oceanâ€“atmosphere model. Dynamics of Atmospheres and Oceans, 2007, 43, 123-150.	1.8	22
22	Kelvin wave hydraulic control induced by interactions between vortices and topography. Journal of Fluid Mechanics, 2011, 687, 194-208.	3.4	22
23	Dynamically Consistent Parameterization of Mesoscale Eddiesâ€"Part II: Eddy Fluxes and Diffusivity from Transient Impulses. Fluids, 2016, 1, 22.	1.7	22
24	Submesoscale generation by boundaries. Journal of Marine Research, 2011, 69, 501-522.	0.3	17
25	Eddy Trains and Striations in Quasigeostrophic Simulations and the Ocean. Journal of Physical Oceanography, 2016, 46, 2807-2825.	1.7	17
26	Tracer-based estimates of eddy-induced diffusivities. Deep-Sea Research Part I: Oceanographic Research Papers, 2020, 160, 103264.	1.4	16
27	Complexity of Mesoscale Eddy Diffusivity in the Ocean. Geophysical Research Letters, 2021, 48, e2020GL091719.	4.0	16
28	On data-driven induction of the low-frequency variability in a coarse-resolution ocean model. Ocean Modelling, 2020, 153, 101664.	2.4	15
29	On the Dynamics of Flows Induced by Topographic Ridges. Journal of Physical Oceanography, 2015, 45, 927-940.	1.7	13
30	A mechanism for jet drift over topography. Journal of Fluid Mechanics, 2018, 845, 392-416.	3.4	11
31	On dynamically unresolved oceanic mesoscale motions. Journal of Fluid Mechanics, 2021, 920, .	3.4	11
32	On non-uniqueness of the mesoscale eddy diffusivity. Journal of Fluid Mechanics, 2021, 920, .	3.4	11
33	Eddy Backscatter and Counter-Rotating Gyre Anomalies of Midlatitude Ocean Dynamics. Fluids, 2016, 1, 28.	1.7	10
34	On the roles of baroclinic modes in eddy-resolving midlatitude ocean dynamics. Ocean Modelling, 2017, 111, 55-65.	2.4	10
35	On eddy transport in the ocean. Part I: The diffusion tensor. Ocean Modelling, 2021, 164, 101831.	2.4	10
36	On eddy transport in the ocean. Part II: The advection tensor. Ocean Modelling, 2021, 165, 101845.	2.4	10

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37	On the application of no-slip lateral boundary conditions to â€˜coarselyâ€™ resolved ocean models. Ocean Modelling, 2011, 39, 411-415.	2.4	9
38	A Comparison of Dataâ€Driven Approaches to Build Lowâ€Dimensional Ocean Models. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002537.	3.8	9
39	A mechanistic model of mid-latitude decadal climate variability. Physica D: Nonlinear Phenomena, 2008, 237, 584-599.	2.8	8
40	Data-adaptive harmonic analysis of oceanic waves and turbulent flows. Chaos, 2020, 30, 061105.	2.5	8
41	Correlation-based flow decomposition and statistical analysis of the eddy forcing. Journal of Fluid Mechanics, 2021, 924, .	3.4	8
42	Tilted drifting jets over a zonally sloped topography: effects of vanishing eddy viscosity. Journal of Fluid Mechanics, 2019, 876, 939-961.	3.4	7
43	Clustering of floating tracers in weakly divergent velocity fields. Physical Review E, 2019, 100, 063108.	2.1	7
44	A method for preserving large-scale flow patterns in low-resolution ocean simulations. Ocean Modelling, 2021, 161, 101795.	2.4	7
45	On co-existing diffusive and anti-diffusive tracer transport by oceanic mesoscale eddies. Ocean Modelling, 2021, 168, 101909.	2.4	6
46	Clustering of Floating Tracer Due to Mesoscale Vortex and Submesoscale Fields. Geophysical Research Letters, 2020, 47, e2019GL086504.	4.0	5
47	Floating tracer clustering in divergent random flows modulated by an unsteady mesoscale ocean field. Geophysical and Astrophysical Fluid Dynamics, 2020, 114, 690-714.	1.2	5
48	On a minimum set of equations for parameterisations in comprehensive ocean circulation models. Ocean Modelling, 2021, 168, 101913.	2.4	5
49	On the stability of tracer simulations with opposite-signed diffusivities. Journal of Fluid Mechanics, 2022, 937, .	3.4	4
50	On transport tensor of dynamically unresolved oceanic mesoscale eddies. Journal of Fluid Mechanics, 2022, 939, .	3.4	3
51	Role of Eddies in the Maintenance of Multiple Jets Embedded in Eastward and Westward Baroclinic Shears. Fluids, 2018, 3, 91.	1.7	2
52	A method for preserving nominally-resolved flow patterns in low-resolution ocean simulations: Dynamical system reconstruction. Ocean Modelling, 2022, 170, 101939.	2.4	2
53	Linear stability analysis for flows over sinusoidal bottom topography. Journal of Fluid Mechanics, 2021, 911, .	3.4	1
54	The Turbulent Ocean By S. A. THORPE. Cambridge University Press, 2005. 458 pp. ISBN 0521 835437. Â£45 (hardback). Journal of Fluid Mechanics, 2006, 568, 473.	3.4	0

#	Article	IF	Citations
55	Western boundary layer nonlinear control of the oceanic gyres. Journal of Fluid Mechanics, 2021, 918, .	3.4	0
56	10.1063/5.0012077.3. , 2020, , .		0