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	A method for preserving nominally-resolved flow patterns in low-resolution ocean simulations: Dynamical system reconstruction. Ocean Modelling, 2022, 170, 101939.	2.4	2
2	On the stability of tracer simulations with opposite-signed diffusivities. Journal of Fluid Mechanics, 2022, 937, .	3.4	4
3	On transport tensor of dynamically unresolved oceanic mesoscale eddies. Journal of Fluid Mechanics, 2022, 939, .	3.4	3
4	Linear stability analysis for flows over sinusoidal bottom topography. Journal of Fluid Mechanics, 2021, 911, .	3.4	1
5	Complexity of Mesoscale Eddy Diffusivity in the Ocean. Geophysical Research Letters, 2021, 48, e2020GL091719.	4.0	16
6	Western boundary layer nonlinear control of the oceanic gyres. Journal of Fluid Mechanics, 2021, 918, .	3.4	0
7	A method for preserving large-scale flow patterns in low-resolution ocean simulations. Ocean Modelling, 2021, 161, 101795.	2.4	7
8	On dynamically unresolved oceanic mesoscale motions. Journal of Fluid Mechanics, 2021, 920, .	3.4	11
9	On non-uniqueness of the mesoscale eddy diffusivity. Journal of Fluid Mechanics, 2021, 920, .	3.4	11
10	On eddy transport in the ocean. Part I: The diffusion tensor. Ocean Modelling, 2021, 164, 101831.	2.4	10
11	Correlation-based flow decomposition and statistical analysis of the eddy forcing. Journal of Fluid Mechanics, 2021, 924, .	3.4	8
12	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
13	On eddy transport in the ocean. Part II: The advection tensor. Ocean Modelling, 2021, 165, 101845.	2.4	10
14	On co-existing diffusive and anti-diffusive tracer transport by oceanic mesoscale eddies. Ocean Modelling, 2021, 168, 101909.	2.4	6
15	On a minimum set of equations for parameterisations in comprehensive ocean circulation models. Ocean Modelling, 2021, 168, 101913.	2.4	5
16	Clustering of Floating Tracer Due to Mesoscale Vortex and Submesoscale Fields. Geophysical Research Letters, 2020, 47, e2019GL086504.	4.0	5
17	On data-driven induction of the low-frequency variability in a coarse-resolution ocean model. Ocean Modelling, 2020, 153, 101664.	2.4	15
18	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

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19	Tracer-based estimates of eddy-induced diffusivities. Deep-Sea Research Part I: Oceanographic Research Papers, 2020, 160, 103264.	1.4	16
20	Data-adaptive harmonic analysis of oceanic waves and turbulent flows. Chaos, 2020, 30, 061105.	2.5	8
21	10.1063/5.0012077.3. , 2020, , .		0
22	Tilted drifting jets over a zonally sloped topography: effects of vanishing eddy viscosity. Journal of Fluid Mechanics, 2019, 876, 939-961.	3.4	7
23	Clustering of floating tracers in weakly divergent velocity fields. Physical Review E, 2019, 100, 063108.	2.1	7
24	A mechanism for jet drift over topography. Journal of Fluid Mechanics, 2018, 845, 392-416.	3.4	11
25	Dynamically consistent parameterization of mesoscale eddies. Part III: Deterministic approach. Ocean Modelling, 2018, 127, 1-15.	2.4	26
26	Lagrangian ocean analysis: Fundamentals and practices. Ocean Modelling, 2018, 121, 49-75.	2.4	313
27	Role of Eddies in the Maintenance of Multiple Jets Embedded in Eastward and Westward Baroclinic Shears. Fluids, 2018, 3, 91.	1.7	2
28	Multiscale Stuart-Landau Emulators: Application to Wind-Driven Ocean Gyres. Fluids, 2018, 3, 21.	1.7	23
29	On the roles of baroclinic modes in eddy-resolving midlatitude ocean dynamics. Ocean Modelling, 2017, 111, 55-65.	2.4	10
30	Eddy Backscatter and Counter-Rotating Gyre Anomalies of Midlatitude Ocean Dynamics. Fluids, 2016, 1, 28.	1.7	10
31	Dynamically Consistent Parameterization of Mesoscale Eddiesâ€"Part II: Eddy Fluxes and Diffusivity from Transient Impulses. Fluids, 2016, 1, 22.	1.7	22
32	Eddy Trains and Striations in Quasigeostrophic Simulations and the Ocean. Journal of Physical Oceanography, 2016, 46, 2807-2825.	1.7	17
33	Dynamically consistent parameterization of mesoscale eddies. Part I: Simple model. Ocean Modelling, 2015, 87, 1-19.	2.4	31
34	Properties and Origins of the Anisotropic Eddy-Induced Transport in the North Atlantic. Journal of Physical Oceanography, 2015, 45, 778-791.	1.7	34
35	On the Dynamics of Flows Induced by Topographic Ridges. Journal of Physical Oceanography, 2015, 45, 927-940.	1.7	13
36	Stochastic modeling of decadal variability in ocean gyres. Geophysical Research Letters, 2015, 42, 1543-1553.	4.0	37

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37	On Spectral Analysis of Mesoscale Eddies. Part II: Nonlinear Analysis. Journal of Physical Oceanography, 2013, 43, 2528-2544.	1.7	35
38	On Spectral Analysis of Mesoscale Eddies. Part I: Linear Analysis. Journal of Physical Oceanography, 2013, 43, 2505-2527.	1.7	33
39	Eddy-Induced Particle Dispersion in the Near-Surface North Atlantic. Journal of Physical Oceanography, 2012, 42, 2206-2228.	1.7	88
40	On the application of no-slip lateral boundary conditions to â€˜coarselyâ€™ resolved ocean models. Ocean Modelling, 2011, 39, 411-415.	2.4	9
41	Submesoscale generation by boundaries. Journal of Marine Research, 2011, 69, 501-522.	0.3	17
42	On latency of multiple zonal jets in the oceans. Journal of Fluid Mechanics, 2011, 686, 534-567.	3.4	55
43	Kelvin wave hydraulic control induced by interactions between vortices and topography. Journal of Fluid Mechanics, 2011, 687, 194-208.	3.4	22
44	The Effects of Mesoscale Oceanâ€"Atmosphere Coupling on the Large-Scale Ocean Circulation. Journal of Climate, 2009, 22, 4066-4082.	3.2	55
45	A Model of Multiple Zonal Jets in the Oceans: Dynamical and Kinematical Analysis. Journal of Physical Oceanography, 2009, 39, 2711-2734.	1.7	50
46	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
47	A mechanism of formation of multiple zonal jets in the oceans. Journal of Fluid Mechanics, 2009, 628, 395-425.	3.4	75
48	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
49	A mechanistic model of mid-latitude decadal climate variability. Physica D: Nonlinear Phenomena, 2008, 237, 584-599.	2.8	8
50	Ocean Eddy Dynamics in a Coupled Oceanâ€"Atmosphere Model*. Journal of Physical Oceanography, 2007, 37, 1103-1121.	1.7	40
51	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
52	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
53	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
54	Dynamical Origin of Low-Frequency Variability in a Highly Nonlinear Midlatitude Coupled Model. Journal of Climate, 2006, 19, 6391-6408.	3.2	22

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55	The Dynamics of a Simple Baroclinic Model of the Wind-Driven Circulation. Journal of Physical Oceanography, 1998, 28, 361-388.	1.7	29
56	On the stability of the wind-driven circulation. Journal of Marine Research, 1998, 56, 937-993.	0.3	31