

Jonathan Gula

List of Publications by Year in descending order

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58
papers

2,365
citations

257101

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214527

47
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76
all docs

76
docs citations

76
times ranked

2400
citing authors

#	ARTICLE	IF	CITATIONS
1	Submesoscale processes and mixing. , 2022, , 181-214.		8
2	Mesoscale Eddy Kinetic Energy Budgets and Transfers between Vertical Modes in the Agulhas Current. Journal of Physical Oceanography, 2022, 52, 677-704.	0.7	3
3	Eady Baroclinic Instability of a Circular Vortex. Symmetry, 2022, 14, 1438.	1.1	0
4	Observed Equatorward Propagation and Chimney Effect of Near-Inertial Waves in the Midlatitude Ocean. Geophysical Research Letters, 2022, 49, .	1.5	12
5	Effects of Mesoscale Dynamics on the Path of Fast-Sinking Particles to the Deep Ocean: A Modeling Study. Journal of Geophysical Research: Oceans, 2022, 127, .	1.0	4
6	The Role of Curvature in Modifying Frontal Instabilities. Part II: Application of the Criterion to Curved Density Fronts at Low Richardson Numbers. Journal of Physical Oceanography, 2021, 51, 317-341.	0.7	12
7	The Role of Curvature in Modifying Frontal Instabilities. Part I: Review of Theory and Presentation of a Nondimensional Instability Criterion. Journal of Physical Oceanography, 2021, 51, 299-315.	0.7	21
8	Bottom Mixing Enhanced by Tropical Storm-Generated Near-Inertial Waves Entering Critical Layers in the Straits of Florida. Geophysical Research Letters, 2021, 48, e2021GL093773.	1.5	1
9	Submesoscale flows impact Agulhas leakage in ocean simulations. Communications Earth & Environment, 2021, 2, .	2.6	9
10	Slippery Bottom Boundary Layers: The Loss of Energy From the General Circulation by Bottom Drag. Geophysical Research Letters, 2021, 48, e2021GL094434.	1.5	6
11	Oceanic Mesoscale Eddy Depletion Catalyzed by Internal Waves. Geophysical Research Letters, 2021, 48, e2021GL094376.	1.5	19
12	The influence of merger and convection on an anticyclonic eddy trapped in a bowl. Ocean Modelling, 2021, 167, 101874.	1.0	4
13	Hydrothermal plumes as hotspots for deep-ocean heterotrophic microbial biomass production. Nature Communications, 2021, 12, 6861.	5.8	7
14	The Interaction of Two Unsteady Point Vortex Sources in a Deformation Field in 2D Incompressible Flows. Regular and Chaotic Dynamics, 2021, 26, 618-646.	0.3	1
15	A Persistent Deep Anticyclonic Vortex in the Rockall Trough Sustained by Anticyclonic Vortices Shed From the Slope Current and Wintertime Convection. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015905.	1.0	10
16	Internal Tide Cycle and Topographic Scattering Over the North Mid-Atlantic Ridge. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016376.	1.0	8
17	Barotropic vorticity balance of the North Atlantic subpolar gyre in an eddy-resolving model. Ocean Science, 2020, 16, 451-468.	1.3	23
18	Interaction of the Gulf Stream with small scale topography: a focus on lee waves. Scientific Reports, 2020, 10, 2332.	1.6	12

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19	Why Does the Deep Western Boundary Current “Leak” around Flemish Cap?. <i>Journal of Physical Oceanography</i> , 2020, 50, 1989-2016.	0.7	9
20	The Submesoscale Kinetic Energy Cascade: Mesoscale Absorption of Submesoscale Mixed Layer Eddies and Frontal Downscale Fluxes. <i>Journal of Physical Oceanography</i> , 2020, 50, 2573-2589.	0.7	53
21	Generation of Submesoscale Frontal Eddies in the Agulhas Current. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 7606-7625.	1.0	29
22	Deep Currents in the Rift Valley of the North Mid-Atlantic Ridge. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	13
23	Potential vorticity diagnostics based on balances between volume integral and boundary conditions. <i>Ocean Modelling</i> , 2019, 138, 23-35.	1.0	14
24	Sea Surface Signature of Internal Tides. <i>Geophysical Research Letters</i> , 2019, 46, 3880-3890.	1.5	17
25	The Gulf Stream North Wall: Ageostrophic Circulation and Frontogenesis. <i>Journal of Physical Oceanography</i> , 2019, 49, 893-916.	0.7	23
26	Submesoscale Coherent Vortices in the Gulf Stream. <i>Geophysical Research Letters</i> , 2019, 46, 2704-2714.	1.5	41
27	Prospects for future satellite estimation of small-scale variability of ocean surface velocity and vorticity. <i>Progress in Oceanography</i> , 2019, 173, 256-350.	1.5	51
28	The life cycle of submesoscale eddies generated by topographic interactions. <i>Ocean Science</i> , 2019, 15, 1531-1543.	1.3	21
29	Uncovering a New Current: The Southwest Madagascar Coastal Current. <i>Geophysical Research Letters</i> , 2018, 45, 1930-1938.	1.5	16
30	Dispersion of deep-sea hydrothermal vent effluents and larvae by submesoscale and tidal currents. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2018, 133, 1-18.	0.6	44
31	Coastal upwelling south of Madagascar: Temporal and spatial variability. <i>Journal of Marine Systems</i> , 2018, 178, 29-37.	0.9	30
32	Dampening of Submesoscale Currents by Air-Sea Stress Coupling in the Californian Upwelling System. <i>Scientific Reports</i> , 2018, 8, 13388.	1.6	59
33	Effects of the Submesoscale on the Potential Vorticity Budget of Ocean Mode Waters. <i>Journal of Physical Oceanography</i> , 2018, 48, 2141-2165.	0.7	37
34	Submesoscale cyclones in the Agulhas current. <i>Geophysical Research Letters</i> , 2017, 44, 346-354.	1.5	37
35	Small-scale open ocean currents have large effects on wind wave heights. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 4500-4517.	1.0	128
36	Submesoscale streamers exchange water on the north wall of the Gulf Stream. <i>Geophysical Research Letters</i> , 2016, 43, 1226-1233.	1.5	33

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37	Control and Stabilization of the Gulf Stream by Oceanic Current Interaction with the Atmosphere. <i>Journal of Physical Oceanography</i> , 2016, 46, 3439-3453.	0.7	75
38	Topographic generation of submesoscale centrifugal instability and energy dissipation. <i>Nature Communications</i> , 2016, 7, 12811.	5.8	156
39	Submesoscale Dynamics of a Gulf Stream Frontal Eddy in the South Atlantic Bight. <i>Journal of Physical Oceanography</i> , 2016, 46, 305-325.	0.7	64
40	North Atlantic Barotropic Vorticity Balances in Numerical Models. <i>Journal of Physical Oceanography</i> , 2016, 46, 289-303.	0.7	21
41	Eddy-topography interactions and the fate of the Persian Gulf outflow. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 6700-6717.	1.0	54
42	Topographic vorticity generation, submesoscale instability and vortex street formation in the Gulf Stream. <i>Geophysical Research Letters</i> , 2015, 42, 4054-4062.	1.5	92
43	Seasonality in submesoscale turbulence. <i>Nature Communications</i> , 2015, 6, 6862.	5.8	242
44	Filament Frontogenesis by Boundary Layer Turbulence. <i>Journal of Physical Oceanography</i> , 2015, 45, 1988-2005.	0.7	109
45	Technical challenges and solutions in representing lakes when using WRF in downscaling applications. <i>Geoscientific Model Development</i> , 2015, 8, 1085-1096.	1.3	39
46	Gulf Stream Dynamics along the Southeastern U.S. Seaboard. <i>Journal of Physical Oceanography</i> , 2015, 45, 690-715.	0.7	128
47	Submesoscale Cold Filaments in the Gulf Stream. <i>Journal of Physical Oceanography</i> , 2014, 44, 2617-2643.	0.7	221
48	Climate change impacts on Great Lakes Basin precipitation extremes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 10,799-10,812.	1.2	49
49	Using a coupled lake model with WRF for dynamical downscaling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 7193-7208.	1.2	58
50	Dynamical Downscaling over the Great Lakes Basin of North America Using the WRF Regional Climate Model: The Impact of the Great Lakes System on Regional Greenhouse Warming. <i>Journal of Climate</i> , 2012, 25, 7723-7742.	1.2	98
51	Frontal instabilities and waves in a differentially rotating fluid. <i>Journal of Fluid Mechanics</i> , 2011, 685, 532-542.	1.4	15
52	Instabilities of buoyancy-driven coastal currents and their nonlinear evolution in the two-layer rotating shallow-water model. Part 1. Passive lower layer. <i>Journal of Fluid Mechanics</i> , 2010, 659, 69-93.	1.4	21
53	Instabilities of buoyancy-driven coastal currents and their nonlinear evolution in the two-layer rotating shallow water model. Part 2. Active lower layer. <i>Journal of Fluid Mechanics</i> , 2010, 665, 209-237.	1.4	20
54	(A)geostrophic adjustment of dipolar perturbations, formation of coherent structures and their properties, as follows from high-resolution numerical simulations with rotating shallow water model. <i>Physics of Fluids</i> , 2010, 22, .	1.6	14

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55	Ageostrophic instabilities of fronts in a channel in a stratified rotating fluid. Journal of Fluid Mechanics, 2009, 627, 485-507.	1.4	24
56	Instabilities of two-layer shallow-water flows with vertical shear in the rotating annulus. Journal of Fluid Mechanics, 2009, 638, 27-47.	1.4	13
57	Foresight Workshop on Advances in Ocean Biological Observations: a sustained system for deep-ocean meroplankton. Research Ideas and Outcomes, 0, 6, .	1.0	5
58	Oceanic mesoscale cyclones cluster surface Lagrangian material. Geophysical Research Letters, 0, , .	1.5	6