

# Nathan Paldor

## List of Publications by Year in descending order

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107  
papers

1,522  
citations

331670

21  
h-index

377865

34  
g-index

120  
all docs

120  
docs citations

120  
times ranked

938  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wave propagation and growth on a surface front in a two-layer geostrophic current. <i>Journal of Marine Research</i> , 1984, 42, 761-785.	0.3	107
2	Hydrographic indications of advection/convection effects in the Gulf of Elat. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1992, 39, 1393-1401.	1.5	92
3	Tropical Plumes over Eastern North Africa as a Source of Rain in the Middle East. <i>Monthly Weather Review</i> , 2007, 135, 4135-4148.	1.4	74
4	Constraints on effective diffusivity during oxygen isotope exchange at a marble-schist contact, Sifnos (Cyclades), Greece. <i>Earth and Planetary Science Letters</i> , 1989, 94, 208-216.	4.4	61
5	Seasonal variations of temperature and salinity in the Gulf of Elat (Aqaba). <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1979, 26, 661-672.	1.5	60
6	Simulation of wind-driven circulation in the Gulf of Elat (Aqaba). <i>Journal of Marine Systems</i> , 2000, 26, 349-365.	2.1	55
7	The Behavior of Groundwater in the Vicinity of the Water Table Evidenced by Specific Discharge Profiles. <i>Water Resources Research</i> , 1986, 22, 1217-1224.	4.2	49
8	Stability of a potential vorticity front: from quasi-geostrophy to shallow water. <i>Journal of Fluid Mechanics</i> , 1996, 315, 65-84.	3.4	47
9	Stability and stable modes of coastal fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1983, 27, 217-228.	1.2	40
10	Linear stability and stable modes of geostrophic fronts. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1983, 24, 299-326.	1.2	37
11	Inertial Trajectories on a Rotating Earth. <i>Journals of the Atmospheric Sciences</i> , 1988, 45, 4013-4019.	1.7	36
12	A Consistent Theory for Linear Waves of the Shallow-Water Equations on a Rotating Plane in Midlatitudes. <i>Journal of Physical Oceanography</i> , 2007, 37, 115-128.	1.7	31
13	Estimating Air-Sea Heat Fluxes in Semienclosed Basins: The Case of the Gulf of Elat (Aqaba). <i>Journal of Physical Oceanography</i> , 2009, 39, 185-202.	1.7	30
14	Annual SST cycle in the Eastern Mediterranean, Red Sea and Gulf of Elat. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	28
15	Polynomial cointegration tests of anthropogenic impact on global warming. <i>Earth System Dynamics</i> , 2012, 3, 173-188.	7.1	28
16	Instabilities of a two-layer coupled front. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1987, 34, 1525-1539.	1.5	27
17	Finite-Wavelength Instabilities of a Coupled Density Front. <i>Journal of Physical Oceanography</i> , 1990, 20, 114-123.	1.7	24
18	Shortwave instabilities of coastal currents. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1991, 58, 225-241.	1.2	24

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19	Mass exchange between mobile freshwater and immobile saline water in the unsaturated zone. <i>Water Resources Research</i> , 1988, 24, 1638-1644.	4.2	23
20	Linear instability of an anticyclonic vortex in a two-layer ocean. <i>Journal of Geophysical Research</i> , 1990, 95, 18075-18079.	3.3	23
21	The Ekman spiral for piecewise-uniform viscosity. <i>Ocean Science</i> , 2020, 16, 1089-1093.	3.4	23
22	Chaotic Trajectories of Tidally Perturbed Inertial Oscillations. <i>Journals of the Atmospheric Sciences</i> , 1992, 49, 2306-2318.	1.7	22
23	Planetary (Rossby) waves and inertia-gravity (Poincaré) waves in a barotropic ocean over a sphere. <i>Journal of Fluid Mechanics</i> , 2013, 726, 123-136.	3.4	21
24	Trapped waves on the mid-latitude $\sigma$ -plane. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2008, 60, 742-748.	1.7	19
25	Chaotic Hamiltonian dynamics of particle's horizontal motion in the atmosphere. <i>Physica D: Nonlinear Phenomena</i> , 1997, 106, 389-431.	2.8	18
26	Zonally propagating wave solutions of Laplace Tidal Equations in a baroclinic ocean of an aqua-planet. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 63, 348.	1.7	18
27	Analytical Considerations of Lagrangian Cross-Equatorial Flow. <i>Journals of the Atmospheric Sciences</i> , 1999, 56, 1229-1237.	1.7	17
28	On the Mixing Enhancement in a Meandering Jet Due to the Interaction with an Eddy. <i>Journal of Physical Oceanography</i> , 1994, 24, 2418-2423.	1.7	16
29	A QBO Cookbook: Sensitivity of the Quasi-Biennial Oscillation to Resolution, Resolved Waves, and Parameterized Gravity Waves. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, e2021MS002568.	3.8	16
30	Microscale haline convection—A proposed mechanism for transport and mixing at the water table region. <i>Water Resources Research</i> , 1988, 24, 1111-1117.	4.2	15
31	Are There Oceanographic Explanations for the Israelites' Crossing of the Red Sea?. <i>Bulletin of the American Meteorological Society</i> , 1992, 73, 305-314.	3.3	15
32	Linear Instability of Barotropic Submesoscale Coherent Vortices Observed in the Ocean. <i>Journal of Physical Oceanography</i> , 1999, 29, 1442-1452.	1.7	15
33	Linear Waves in Midlatitudes on the Rotating Spherical Earth. <i>Journal of Physical Oceanography</i> , 2009, 39, 3204-3215.	1.7	15
34	Classification of eastward propagating waves on the spherical Earth. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 1554-1564.	2.7	14
35	The Divergence Fields Associated with Time-Dependent Jet Streams. <i>Journals of the Atmospheric Sciences</i> , 1999, 56, 1843-1857.	1.7	13
36	The Reddy maker. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2002, 49, 1531-1549.	1.4	13

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37	Barotropic Instability of a Zonal Jet: From Nondivergent Perturbations on the $\hat{\rho}^2$ Plane to Divergent Perturbations on a Sphere. <i>Journal of Physical Oceanography</i> , 2006, 36, 2271-2282.	1.7	13
38	The deflection angle between a wind-forced surface current and the overlying wind in an ocean with vertically varying eddy viscosity. <i>Physics of Fluids</i> , 2020, 32, .	4.0	13
39	Reconstructing balloon trajectories in the tropical stratosphere with a hybrid model using analysed fields. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001, 127, 975-988.	2.7	12
40	The mechanics of inertial motion on the earth and on a rotating sphere. <i>Physica D: Nonlinear Phenomena</i> , 2001, 160, 29-53.	2.8	11
41	The zonal drift associated with time-dependent particle motion on the earth. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001, 127, 2435-2450.	2.7	11
42	Global Circulation in an Axially Symmetric Shallow-Water Model, Forced by Off-Equatorial Differential Heating. <i>Journals of the Atmospheric Sciences</i> , 2010, 67, 1275-1286.	1.7	11
43	A quantitative test case for global-scale dynamical cores based on analytic wave solutions of the shallow-water equations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 2705-2714.	2.7	11
44	Why are the meanders of the North Atlantic Current stable and stationary?. <i>Geophysical Research Letters</i> , 2000, 27, 1029-1032.	4.0	10
45	Wind-Based Estimations of Ocean Surface Currents From Massive Clusters of Drifters in the Gulf of Mexico. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 5844-5869.	2.6	10
46	A Practical, Hybrid Model for Predicting the Trajectories of Near-Surface Ocean Drifters. <i>Journal of Atmospheric and Oceanic Technology</i> , 2004, 21, 1246-1258.	1.3	9
47	Linear waves in a symmetric equatorial channel. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007, 133, 571-577.	2.7	9
48	Global Circulation in an Axially Symmetric Shallow Water Model Forced by Equinoctial Differential Heating. <i>Journals of the Atmospheric Sciences</i> , 2009, 66, 1418-1433.	1.7	9
49	Why is the stability of the Agulhas Current geographically bi-modal?. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	9
50	Laboratory experiments and a non-harmonic theory for topographic Rossby waves over a linearly sloping bottom on the $x$ - $y$ -plane. <i>Journal of Fluid Mechanics</i> , 2010, 645, 479-496.	3.4	9
51	The mixed Rossby-gravity wave on the spherical Earth. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018, 144, 1820-1830.	2.7	9
52	Nonlinear waves on a coupled density front. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1986, 37, 171-191.	1.2	8
53	Linear Instability of a Zonal Jet on a Plane*. <i>Journal of Physical Oceanography</i> , 1997, 27, 2361-2369.	1.7	8
54	The transport in the Ekman surface layer on the spherical Earth. <i>Journal of Marine Research</i> , 2002, 60, 47-72.	0.3	8

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55	The eigenvalue equations of equatorial waves on a sphere. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 62, 62.	1.7	8
56	An invariant theory of the linearized shallow water equations with rotation and its application to a sphere and a plane. <i>Dynamics of Atmospheres and Oceans</i> , 2011, 51, 26-44.	1.8	8
57	Linear instability of warm core, constant potential vorticity, eddies in a two-layer ocean. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 1884-1893.	2.7	8
58	A model equation for nonlinear wavelength selection and amplitude evolution of frontal waves. <i>Journal of Nonlinear Science</i> , 1994, 4, 471-496.	2.1	6
59	From the Tropics to the Poles in Forty Days. <i>Bulletin of the American Meteorological Society</i> , 1997, 78, 2779-2784.	3.3	6
60	Is There a Paleolimnological Explanation for "Walking on Water"™ in the Sea of Galilee?. <i>Journal of Paleolimnology</i> , 2006, 35, 417-439.	1.6	6
61	Inertial particle dynamics on the rotating Earth. , 2007, , 119-135.		6
62	Numerical simulation of harmonic, and trapped, Rossby waves in a channel on the midlatitude $\beta$ -plane. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 2292-2299.	2.7	6
63	Linear instabilities of a two-layer geostrophic surface front near a wall. <i>Journal of Marine Research</i> , 2004, 62, 639-662.	0.3	6
64	Abyssal gyres. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1991, 58, 173-196.	1.2	5
65	Testing the historic tracking of climate models. <i>International Journal of Forecasting</i> , 2016, 32, 1234-1246.	6.5	5
66	The Matsuno baroclinic wave test case. <i>Geoscientific Model Development</i> , 2019, 12, 2181-2193.	3.6	5
67	Barotropic modes, baroclinic modes and equivalent depths in the atmosphere. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020, 146, 2096-2115.	2.7	5
68	Inertial particle approximation to solutions of the Shallow Water Equations on the rotating spherical Earth. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2006, 58, 280-292.	1.7	4
69	Mixing processes in the deep water of the Gulf of Elat (Aqaba): Evidence from measurements and modeling of the triple isotopic composition of dissolved oxygen. <i>Limnology and Oceanography</i> , 2013, 58, 1373-1386.	3.1	4
70	On the stability of outcropping eddies in a constant- $\rho$ ocean. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 1920-1928.	2.7	4
71	An accurate procedure for estimating the phase speed of ocean waves from observations by satellite borne altimeters. <i>Acta Astronautica</i> , 2017, 137, 504-511.	3.2	4
72	Amplitude-Wavelength Relations of Nonlinear Frontal Waves on Coastal Currents. <i>Journal of Physical Oceanography</i> , 1988, 18, 753-760.	1.7	3

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73	Improving the calculation of particle trajectories in the extra-tropical troposphere using standard NCEP fields. <i>Atmospheric Environment</i> , 2002, 36, 483-490.	4.1	3
74	Higher-order corrections for Rossby waves in a zonal channel on the $\hat{\mathbb{R}}^2$ -plane. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007, 133, 1893-1898.	2.7	3
75	On the role of viscosity in ideal Hadley circulation models. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	3
76	Comments on "On the Steadiness of Separating Meandering Currents". <i>Journal of Physical Oceanography</i> , 2012, 42, 1366-1370.	1.7	3
77	Linear waves on the spheroidal Earth. <i>Dynamics of Atmospheres and Oceans</i> , 2012, 57, 17-26.	1.8	3
78	A Hermite-based Shallow Water solver for a thin ocean over a rotating sphere. <i>Journal of Computational Physics</i> , 2014, 269, 80-97.	3.8	3
79	Linear instability of constant PV cold-core eddies in a two-layer ocean. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 2886-2897.	2.7	3
80	Trapped planetary (Rossby) waves observed in the Indian Ocean by satellite borne altimeters. <i>Ocean Science</i> , 2017, 13, 483-494.	3.4	3
81	Recent advances in linear wave theory on the spherical earth. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2019, 160, 63-67.	1.4	3
82	On the role of domain aspect ratio in the westward intensification of wind-driven surface ocean circulation. <i>Ocean Science</i> , 2021, 17, 351-363.	3.4	3
83	Planetary, inertia-gravity and Kelvin waves on the $\mathbb{R}^2$ -plane and $\hat{\mathbb{R}}^2$ -plane in the presence of a uniform zonal flow. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2021, 147, 2935-2952.	2.7	3
84	A Lagrangian theory of geostrophic adjustment for zonally invariant flows on a rotating spherical earth. <i>Physics of Fluids</i> , 2021, 33, 066602.	4.0	3
85	Non-Divergent 2D Vorticity Dynamics and the Shallow Water Equations on the Rotating Earth. , 2008, , 177-187.		3
86	Wind Set-down Relaxation on a Sloping Beach. <i>Journal of Computational Physics</i> , 1997, 138, 644-664.	3.8	2
87	On spurious instabilities on the $\hat{\mathbb{R}}^2$ -planes with no mean flows. <i>Annales Geophysicae</i> , 2010, 28, 1737-1739.	1.6	2
88	Application of laboratory experiments to assess the error introduced by the imposition of "wall" boundary conditions in shelf models. <i>Ocean Modelling</i> , 2012, 41, 35-41.	2.4	2
89	A Gegenbauer-based Shallow Water solver for a thick ocean over a rotating sphere. <i>Journal of Computational Physics</i> , 2016, 304, 487-505.	3.8	2
90	Barotropic instability of a zonal jet on the sphere: from non-divergence through quasi-geostrophy to shallow water. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2021, 115, 15-34.	1.2	2

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91	Lagrangian trajectories at the outflow of tropical cyclones. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 58-73.	2.7	2
92	Long, nonlinear oscillations of density fronts. Geophysical and Astrophysical Fluid Dynamics, 1988, 42, 175-186.	1.2	1
93	The mechanics of eddy transport from one hemisphere to the other. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 2011-2025.	2.7	1
94	On the dominance of changes in planetary angular momentum in large scale extra-tropical flows. Geophysical Research Letters, 2007, 34, .	4.0	1
95	Divergent versus Nondivergent Instabilities of Piecewise Uniform Shear Flows on the f Plane. Journal of Physical Oceanography, 2009, 39, 1685-1699.	1.7	1
96	The cave resonator and the Parker Turner cave collapse problem. Safety Science, 2010, 48, 607-614.	4.9	1
97	On the meridional structure of extra-tropical Rossby waves. Tellus, Series A: Dynamic Meteorology and Oceanography, 2011, 63, 817-827.	1.7	1
98	Constraining Evaporation Rates Based on Large-Scale Sea Surface Transects of Salinity or Isotopic Compositions. Journal of Geophysical Research: Oceans, 2019, 124, 1322-1330.	2.6	1
99	Geostrophic adjustment on the f-plane: Symmetric versus anti-symmetric initial height distributions. Physics of Fluids, 2021, 33, 076607.	4.0	1
100	Kelvin Waves on the Rotating Spherical Earth. SpringerBriefs in Earth System Sciences, 2015, , 69-76.	0.1	1
101	Waves on the equatorial $\hat{f}^2$ -plane in the presence of a uniform zonal flow: Beyond the Doppler shift. Physics of Fluids, 2022, 34, .	4.0	1
102	A note on the use of zero potential vorticity models. Geophysical and Astrophysical Fluid Dynamics, 1990, 51, 27-34.	1.2	0
103	Noise-Induced Interhemispheric Particle Transport – Stochastic Resonance in a Hamiltonian System. Journals of the Atmospheric Sciences, 2000, 57, 150-157.	1.7	0
104	Was there ice along the shore of the Sea of Galilee during the last 12,000? – Reply to a comment by Prange et Al. (2007) and a comment by Friedman (2007). Journal of Paleolimnology, 2007, 38, 597-600.	1.6	0
105	Commonly used methods fail to detect known propagation speeds of simulated signals from time-longitude (Hovmöller) diagrams. Ocean Science, 2019, 15, 1593-1599.	3.4	0
106	Linear instability of uniform shear zonal currents on the $\hat{f}^2$ -plane. Journal of Marine Research, 2011, 69, 693-704.	0.3	0
107	Waves in a Channel on the Equatorial $\hat{f}^2$ -Plane. SpringerBriefs in Earth System Sciences, 2015, , 29-34.	0.1	0