Richard D Ray

List of Publications by Year
in descending order

96 papers	6,483 citations	81900 39 h-index	66911 78 g-index
104 all docs	104 docs citations	104 times ranked	4202 citing authors

#	Article	IF	Citations
1	Significant dissipation of tidal energy in the deep ocean inferred from satellite altimeter data. Nature, 2000, 405, 775-778.	27.8	688
2	Estimates of M2tidal energy dissipation from TOPEX/Poseidon altimeter data. Journal of Geophysical Research, 2001, 106, 22475-22502.	3.3	359
3	Accuracy assessment of global barotropic ocean tide models. Reviews of Geophysics, 2014, 52, 243-282.	23.0	338
4	Surface manifestation of internal tides generated near Hawaii. Geophysical Research Letters, 1996, 23, 2101-2104.	4.0	261
5	Accuracy assessment of recent ocean tide models. Journal of Geophysical Research, 1997, 102, 25173-25194.	3.3	255
6	Oceanic tides from Geosat altimetry. Journal of Geophysical Research, 1990, 95, 3069-3090.	3.3	241
7	Surface manifestation of internal tides in the deep ocean: observations from altimetry and island gauges. Progress in Oceanography, 1997, 40, 135-162.	3.2	240
8	Numerical modeling of the global semidiurnal tide in the present day and in the last glacial maximum. Journal of Geophysical Research, 2004, 109, .	3.3	240
9	Semi-diurnal and diurnal tidal dissipation from TOPEX/Poseidon altimetry. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	203
10	A preliminary tidal analysis of TOPEX/POSEIDON altimetry. Journal of Geophysical Research, 1994, 99, 24799.	3.3	176
11	Barometric tides from ECMWF operational analyses. Annales Geophysicae, 2003, 21, 1897-1910.	1.6	166
12	Forcing Factors Affecting Sea Level Changes at the Coast. Surveys in Geophysics, 2019, 40, 1351-1397.	4.6	165
13	Energetics of global ocean tides from Geosat altimetry. Journal of Geophysical Research, 1991, 96, 16897-16912.	3.3	145
14	Precise comparisons of bottomâ€pressure and altimetric ocean tides. Journal of Geophysical Research: Oceans, 2013, 118, 4570-4584.	2.6	131
15	Assimilation of altimetry data for nonlinear shallow-water tides: Quarter-diurnal tides of the Northwest European Shelf. Continental Shelf Research, 2010, 30, 668-679.	1.8	111
16	Estimates of internal tide energy fluxes from Topex/Poseidon Altimetry: Central North Pacific. Geophysical Research Letters, 2001, 28, 1259-1262.	4.0	108
17	A 10-Year Comparison of Water Levels Measured with a Geodetic GPS Receiver versus a Conventional Tide Gauge. Journal of Atmospheric and Oceanic Technology, 2017, 34, 295-307.	1.3	108
18	Lunar orbital evolution: A synthesis of recent results. Geophysical Research Letters, 1999, 26, 3045-3048.	4.0	103

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19	M2 Internal Tides and Their Observed Wavenumber Spectra from Satellite Altimetry. Journal of Physical Oceanography, 2016, 46, 3-22.	1.7	101
20	Constraints on energy dissipation in the Earth's body tide from satellite tracking and altimetry. Geophysical Journal International, 2001, 144, 471-480.	2.4	99
21	Tide model errors and GRACE gravimetry: towards a more realistic assessment. Geophysical Journal International, 2006, 167, 1055-1059.	2.4	97
22	Secular changes of the M tide in the Gulf of Maine. Continental Shelf Research, 2006, 26, 422-427.	1.8	90
23	Future nuisance flooding at Boston caused by astronomical tides alone. Earth's Future, 2016, 4, 578-587.	6.3	76
24	A Brief Overview of Tides in the Indonesian Seas. Oceanography, 2005, 18, 74-79.	1.0	75
25	Constraints on mantle anelasticity from geodetic observations, and implications for theJ2anomaly. Geophysical Journal International, 2006, 165, 3-16.	2.4	74
26	Assessment of the Jason-2 Extension to the TOPEX/Poseidon, Jason-1 Sea-Surface Height Time Series for Global Mean Sea Level Monitoring. Marine Geodesy, 2010, 33, 447-471.	2.0	74
27	Understanding of Contemporary Regional Seaâ€Level Change and the Implications for the Future. Reviews of Geophysics, 2020, 58, e2019RG000672.	23.0	74
28	On the â€œCalâ€Modeâ€•Correction to TOPEX Satellite Altimetry and Its Effect on the Global Mean Sea Level Time Series. Journal of Geophysical Research: Oceans, 2017, 122, 8371-8384.	2.6	72
29	The Global S₁Tide. Journal of Physical Oceanography, 2004, 34, 1922-1935.	1.7	70
30	Secular changes in the solar semidiurnal tide of the western North Atlantic Ocean. Geophysical Research Letters, 2009, 36, .	4.0	62
31	Short-arc analysis of intersatellite tracking data in a gravity mapping mission. Journal of Geodesy, 2002, 76, 307-316.	3.6	57
32	Atmospheric pressure corrections in geodesy and oceanography: A strategy for handling air tides. Geophysical Research Letters, 2002, 29, 6-1-6-4.	4.0	55
33	Tidal Models in a New Era of Satellite Gravimetry. Space Science Reviews, 2003, 108, 271-282.	8.1	55
34	Towards Comprehensive Observing and Modeling Systems for Monitoring and Predicting Regional to Coastal Sea Level. Frontiers in Marine Science, 2019, 6, .	2.5	51
35	Deviation of Long-Period Tides from Equilibrium: Kinematics and Geostrophy. Journal of Physical Oceanography, 2003, 33, 822-839.	1.7	50
36	Tide Predictions in Shelf and Coastal Waters: Status and Prospects. , 2011, , 191-216.		50

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37	Decadal Climate Variability: Is There a Tidal Connection?. Journal of Climate, 2007, 20, 3542-3560.	3.2	46
38	Vertical crustal motion derived from satellite altimetry and tide gauges, and comparisons with DORIS measurements. Advances in Space Research, 2010, 45, 1510-1522.	2.6	43
39	Tidal mixing signatures in the Indonesian seas from highâ€resolution sea surface temperature data. Geophysical Research Letters, 2016, 43, 8115-8123.	4.0	43
40	Long-period tidal variations in the length of day. Journal of Geophysical Research: Solid Earth, 2014, 119, 1498-1509.	3.4	41
41	Mapping nonlinear shallow-water tides: a look at the past and future. Ocean Dynamics, 2006, 56, 416-429.	2.2	35
42	Bottom pressure tides along a line in the southeast Atlantic Ocean and comparisons with satellite altimetry. Ocean Dynamics, 2010, 60, 1167-1176.	2.2	34
43	Tidal Prediction. Journal of Marine Research, 2017, 75, 189-237.	0.3	34
44	Propagation of the overtide M₄ through the deep Atlantic Ocean. Geophysical Research Letters, 2007, 34, .	4.0	33
45	Spectral analysis of highly aliased sea-level signals. Journal of Geophysical Research, 1998, 103, 24991-25003.	3.3	32
46	GRACE Followâ€On Laser Ranging Interferometer Measurements Uniquely Distinguish Shortâ€Wavelength Gravitational Perturbations. Geophysical Research Letters, 2020, 47, e2020GL089445.	4.0	32
47	Inversion of oceanic tidal currents from measured elevations. Journal of Marine Systems, 2001, 28, 1-18.	2.1	31
48	Sea Level Rise in the Samoan Islands Escalated by Viscoelastic Relaxation After the 2009 Samoaâ€Tonga Earthquake. Journal of Geophysical Research: Solid Earth, 2019, 124, 4142-4156.	3.4	31
49	Fortnightly Earth rotation, ocean tides and mantle anelasticity. Geophysical Journal International, 2012, 189, 400-413.	2.4	30
50	New estimates of oceanic tidal energy dissipation from satellite altimetry. Geophysical Research Letters, 1989, 16, 73-76.	4.0	29
51	Error spectrum for the global M2ocean tide. Geophysical Research Letters, 2001, 28, 21-24.	4.0	29
52	Qualitative comparisons of global ocean tide models by analysis of intersatellite ranging data. Journal of Geophysical Research, 2009, 114, .	3.3	29
53	Nineteenthâ€Century Tides in the Gulf of Maine and Implications for Secular Trends. Journal of Geophysical Research: Oceans, 2019, 124, 7046-7067.	2.6	29
54	Accuracy assessment of global internal-tide models using satellite altimetry. Ocean Science, 2021, 17, 147-180.	3.4	28

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55	Simultaneous Ocean Wave Measurements by the Jason and Topex Satellites, with Buoy and Model Comparisons Special Issue: Jason-1 Calibration/Validation. Marine Geodesy, 2003, 26, 367-382.	2.0	26
56	Future Nuisance Flooding in Norfolk, VA, From Astronomical Tides and Annual to Decadal Internal Climate Variability. Geophysical Research Letters, 2018, 45, 12,432.	4.0	26
57	Ocean tidal solutions in Antarctica from GRACE interâ€satellite tracking data. Geophysical Research Letters, 2007, 34, .	4.0	25
58	Surface Pressure Tide Climatologies Deduced from a Quality-Controlled Network of Barometric Observations*. Monthly Weather Review, 2014, 142, 4872-4889.	1.4	25
59	Comparisons of global analyses and station observations of the S2 barometric tide. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1085-1097.	1.6	22
60	Times of peak astronomical tides. Geophysical Journal International, 2007, 168, 999-1004.	2.4	22
61	Observations of the Mf ocean tide from Geosat altimetry. Geophysical Research Letters, 1990, 17, 619-622.	4.0	21
62	On the Sea-State Bias of the Geosat Altimeter. Journal of Atmospheric and Oceanic Technology, 1991, 8, 397-408.	1.3	21
63	The Semiannual and 4.4â€Year Modulations of Extreme High Tides. Journal of Geophysical Research: Oceans, 2019, 124, 5907-5922.	2.6	21
64	Calibration of Ocean Wave Measurements by the TOPEX, Jason-1, and Jason-2 Satellites. Marine Geodesy, 2012, 35, 238-257.	2.0	20
65	Tidally Driven Interannual Variation in Extreme Sea Level Frequencies in the Gulf of Maine. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016291.	2.6	20
66	Assimilation of GRACE tide solutions into a numerical hydrodynamic inverse model. Geophysical Research Letters, 2009, 36, .	4.0	18
67	On Tidal Inference in the Diurnal Band. Journal of Atmospheric and Oceanic Technology, 2017, 34, 437-446.	1.3	17
68	Using an altimeter-derived internal tide model to remove tides from in situ data. Geophysical Research Letters, 2017, 44, 4241-4245.	4.0	17
69	Aliased Tidal Variability in Mesoscale Sea Level Anomaly Maps. Journal of Atmospheric and Oceanic Technology, 2018, 35, 2421-2435.	1.3	17
70	A preliminary tidal analysis of ICESat laser altimetry: Southern Ross Ice Shelf. Geophysical Research Letters, 2008, 35, .	4.0	16
71	Diurnal oscillations in atmospheric pressure at twenty-five small oceanic islands. Geophysical Research Letters, 1998, 25, 3851-3854.	4.0	13
72	Consideration of tidal variations in the geocenter on satellite altimeter observations of ocean tides. Geophysical Research Letters, 2014, 41, 2454-2459.	4.0	13

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73	Tests of ocean-tide models by analysis of satellite-to-satellite range measurements: an update. Geophysical Journal International, 2019, 217, 1174-1178.	2.4	13
74	First global observations of third-degree ocean tides. Science Advances, 2020, 6, .	10.3	13
75	Geometrical determination of the Love Numberh2at four tidal frequencies. Geophysical Research Letters, 1995, 22, 2175-2178.	4.0	12
76	One centimeter-level observations of diurnal ocean tides from global monthly mean time-variable gravity fields. Journal of Geodesy, 2010, 84, 715-729.	3.6	12
77	Satellite altimeter observations of the Mf and Mm ocean tides, with simultaneous orbit corrections. Geophysical Monograph Series, 1994, , 69-78.	0.1	12
78	Tides and Satellite Altimetry. , 2017, , 427-458.		12
79	Is asteroid 951 Gaspra in a resonant obliquity state with its spin increasing due to YORP?. Journal of Geophysical Research, 2002, 107, 3-1.	3.3	11
80	Resonant Third-Degree Diurnal Tides in the Seas off Western Europe. Journal of Physical Oceanography, 2001, 31, 3581-3586.	1.7	10
81	Terdiurnal Surface-Pressure Oscillations over the Continental United States. Monthly Weather Review, 2005, 133, 2526-2534.	1.4	10
82	On Measurements of the Tide at Churchill, Hudson Bay. Atmosphere - Ocean, 2016, 54, 108-116.	1.6	10
83	Daily harmonics of ionospheric total electron content from satellite altimetry. Journal of Atmospheric and Solar-Terrestrial Physics, 2020, 209, 105423.	1.6	9
84	The mean seasonal cycle in relative sea level from satellite altimetry and gravimetry. Journal of Geodesy, 2021, 95, 80.	3.6	9
85	Alongâ€Orbit Analysis of GRACE Followâ€On Interâ€Satellite Laser Ranging Measurements for Subâ€Monthly Surface Mass Variations. Journal of Geophysical Research: Solid Earth, 2022, 127, e2021JB022983.	3.4	9
86	The flux of tidal energy across latitude 60Â°S. Geophysical Research Letters, 1997, 24, 543-546.	4.0	7
87	On the Development of SWOT In Situ Calibration/Validation for Short-Wavelength Ocean Topography. Journal of Atmospheric and Oceanic Technology, 2022, 39, 595-617.	1.3	7
88	Seasonal and Interannual Variability of Tidal Mixing Signatures in Indonesian Seas from High-Resolution Sea Surface Temperature. Remote Sensing, 2022, 14, 1934.	4.0	7
89	A fortnightly atmospheric â€˜tideâ€™ at Bali caused by oceanic tidal mixing in Lombok Strait. Geoscience Letters, 2019, 6, .	3.3	5
90	New determinations of tides on the north-western Ross Ice Shelf. Antarctic Science, 2021, 33, 89-102.	0.9	5

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91	Tidal analysis experiments with sun-synchronous satellite altimeter data. Journal of Geodesy, 2007, 81, 247-257.	3.6	3
92	Tidal Geopotential Dependence on Earth Ellipticity and Seawater Density and Its Detection With the GRACE Followâ€On Laser Ranging Interferometer. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016774.	2.6	3
93	Preface: Developments in the science and history of tides. Ocean Science, 2021, 17, 809-818.	3.4	3
94	The problematic Î¨1 ocean tide. Geophysical Journal International, 2021, 227, 1181-1192.	2.4	3
95	Algorithm 741: least-squares solution of a linear, bordered, block-diagonal system of equations. ACM Transactions on Mathematical Software, 1995, 21, 20-25.	2.9	0
96	Reply to comments by S. R. Dickman on â€˜Fortnightly Earth rotation, ocean tides and mantle anelasticityâ€™. Geophysical Journal International, 2013, 192, 1055-1058.	2.4	0