Walter H F Smith

List of Publications by Year
in descending order

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86 papers	30,222 citations	76294 40 h-index	62565 80 g-index
94 all docs	94 docs citations	94 times ranked	17478 citing authors

#	Article	IF	Citations
1	Comparison of Stacked Sentinelâ€3 A&B and AltiKa Repeat Cycle Data. Earth and Space Science, 2022, 9, e2021EA001892.	1.1	0
2	Improved Bathymetric Prediction Using Geological Information: SYNBATH. Earth and Space Science, 2022, 9, .	1.1	19
3	Direct conversion of latitude and height from one ellipsoid to another. Journal of Geodesy, 2022, 96, 1.	1.6	4
4	Arctic Sea-Ice Surface Elevation Distribution from NASAâ€™s Operation IceBridge ATM Data. Remote Sensing, 2022, 14, 3011.	1.8	0
5	The SARAL/AltiKa mission: A step forward to the future of altimetry. Advances in Space Research, 2021, 68, 808-828.	1.2	21
6	Gravity field recovery from geodetic altimeter missions. Advances in Space Research, 2021, 68, 1059-1072.	1.2	80
7	The Unique Role of the Jason Geodetic Missions for high Resolution Gravity Field and Mean Sea Surface Modelling. Remote Sensing, 2021, 13, 646.	1.8	13
8	The Copernicus Sentinel-6 mission: Enhanced continuity of satellite sea level measurements from space. Remote Sensing of Environment, 2021, 258, 112395.	4.6	64
9	The second-order effect of Earthâ€™s rotation on Cryosat-2 fully focused SAR processing. Journal of Geodesy, 2020, 94, 1.	1.6	1
10	The performance of CryoSat-2 fully-focussed SAR for inland water-level estimation. Remote Sensing of Environment, 2020, 237, 111589.	4.6	20
11	Global Bathymetry and Topography at 15ÂArcÂSec: SRTM15+. Earth and Space Science, 2019, 6, 1847-1864.	1.1	440
12	The Generic Mapping Tools Version 6. Geochemistry, Geophysics, Geosystems, 2019, 20, 5556-5564.	1.0	1,246
13	Removing Intra-1-Hz Covariant Error to Improve Altimetric Profiles of $sigma^{0}$ and Sea Surface Height. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 3741-3752.	2.7	20
14	Corrections to â€œRemoving Intra-1-Hz Covariant Error to Improve Altimetric Profiles of $sigma^{0}$ and Sea Surface Heightâ€•[Jun 19 DOI: 10.1109/TGRS.2018.2886998]. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8327-8327.	2.7	0
15	Pulse-to-Pulse Correlation Effects in High PRF Low-Resolution Mode Altimeters. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 2610-2617.	2.7	9
16	Spectral windows for satellite radar altimeters. Advances in Space Research, 2018, 62, 1576-1588.	1.2	8
17	A Semianalytical Model of the Synthetic Aperture, Interferometric Radar Altimeter Mean Echo, and Echo Cross-Product and Its Statistical Fluctuations. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 2539-2553.	2.7	7
18	A Method of Stacking AltiKa Repeat Cycle Data that May Reveal 75,000+ Possible Small Seamounts. Earth and Space Science, 2018, 5, 964-969.	1.1	3

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19	The Benefits of the Ka-Band as Evidenced from the SARAL/AltiKa Altimetric Mission: Scientific Applications. Remote Sensing, 2018, 10, 163.	1.8	40
20	Impact of synthetic abyssal hill roughness on resolved motions in numerical global ocean tide models. Ocean Modelling, 2017, 112, 1-16.	1.0	10
21	Fully Focused SAR Altimetry: Theory and Applications. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 392-406.	2.7	64
22	Airline Flight Paths over the Unmapped Ocean. Eos, 2017, , .	0.1	3
23	Detecting small seamounts in AltiKa repeat cycle data. Marine Geophysical Researches, 2016, 37, 349-359.	0.5	10
24	Resolution of Seamount Geoid Anomalies Achieved by the SARAL/AltiKa and Envisat RA2 Satellite Radar Altimeters. Marine Geodesy, 2015, 38, 644-671.	0.9	23
25	Waveform Aliasing in Satellite Radar Altimetry. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1671-1682.	2.7	36
26	Retracking CryoSat-2, Envisat and Jason-1 radar altimetry waveforms for improved gravity field recovery. Geophysical Journal International, 2014, 196, 1402-1422.	1.0	97
27	Seafloor in the Malaysia Airlines Flight <scp>MH370</scp> Search Area. Eos, 2014, 95, 173-174.	0.1	27
28	New global marine gravity model from CryoSat-2 and Jason-1 reveals buried tectonic structure. Science, 2014, 346, 65-67.	6.0	1,074
29	Slope correction for ocean radar altimetry. Journal of Geodesy, 2014, 88, 765-771.	1.6	18
30	Toward 1-mGal accuracy in global marine gravity from CryoSat-2, Envisat, and Jason-1. The Leading Edge, 2013, 32, 892-899.	0.4	208
31	Calibration of the CryoSat-2 Interferometer and Measurement of Across-Track Ocean Slope. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 57-72.	2.7	36
32	Significant improvements in marine gravity from ongoing satellite missions. Marine Geophysical Researches, 2013, 34, 137-146.	0.5	8
33	Generic Mapping Tools: Improved Version Released. Eos, 2013, 94, 409-410.	0.1	3,003
34	Radially symmetric coherence between satellite gravity and multibeam bathymetry grids. Marine Geophysical Researches, 2012, 33, 223-227.	0.5	18
35	Evolution of errors in the altimetric bathymetry model used by Google Earth and GEBCO. Marine Geophysical Researches, 2010, 31, 223-238.	0.5	22
36	The Volume of Earthâ€™s Ocean. Oceanography, 2010, 23, 112-114.	0.5	125

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37	A global positioning systemâ€"based climatology for the total electron content in the ionosphere. Journal of Geophysical Research, 2010, 115, .	3.3	75
38	The Marine Geoid and Satellite Altimetry. , 2010, , 181-193.		5
39	A consistent data set of Antarctic ice sheet topography, cavity geometry, and global bathymetry. Earth System Science Data, 2010, 2, 261-273.	3.7	129
40	Orbit Accuracy Requirement for ABYSS: The Space Station Radar Altimeter to Map Global Bathymetry. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 653-657.	1.4	2
41	Global Bathymetry and Elevation Data at 30 Arc Seconds Resolution: SRTM30_PLUS. Marine Geodesy, 2009, 32, 355-371.	0.9	1,168
42	Mesoscale ocean dynamics observed by satellite altimeters in non-repeat orbits. Geophysical Research Letters, 2009, 36, .	1.5	8
43	Global marine gravity from retracked Geosat and ERSâ€1 altimetry: Ridge segmentation versus spreading rate. Journal of Geophysical Research, 2009, 114, .	3.3	591
44	An uncertainty model for deep ocean single beam and multibeam echo sounder data. Marine Geophysical Researches, 2008, 29, 239-250.	0.5	25
45	How supercontinents and superoceans affect seafloor roughness. Nature, 2008, 456, 938-941.	13.7	28
46	First Coastal Altimetry Workshop: Cooperative Institute for Oceanographic Satellite Studies/National Oceanic and Atmospheric Administration Coastal Altimeter Workshop; 5â€"7 February 2008, Silver Spring, Maryland. Eos, 2008, 89, 380-380.	0.1	6
47	Some remarks on resolving seamounts in satellite gravity. Geophysical Research Letters, 2007, 34, .	1.5	12
48	Global gravity, bathymetry, and the distribution of submarine volcanism through space and time. Journal of Geophysical Research, 2006, 111, .	3.3	78
49	Reply to Comment on â€œSatellite altimetry and the intensification of Hurricane Katrinaâ€• Eos, 2006, 87, 89-89.	0.1	8
50	Bathymetry from space: Rationale and requirements for a new, high-resolution altimetric mission. Comptes Rendus - Geoscience, 2006, 338, 1049-1062.	0.4	50
51	An Evaluation of Publicly Available Global Bathymetry Grids. Marine Geophysical Researches, 2006, 27, 19-34.	0.5	101
52	Retracking ERS-1 altimeter waveforms for optimal gravity field recovery. Geophysical Journal International, 2005, 163, 79-89.	1.0	117
53	Satellite altimetry and the intensification of Hurricane Katrina. Eos, 2005, 86, 366.	0.1	111
54	The Contributions of Abyssal Hill Morphology and Noise to Altimetric Gravity Fabric. Oceanography, 2004, 17, 24-37.	0.5	24

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55	Introduction to This Special Issue on Bathymetry from Space. Oceanography, 2004, 17, 6-7.	0.5	17
56	Conventional Bathymetry, Bathymetry from Space, and Geodetic Altimetry. Oceanography, 2004, 17, 8-23.	0.5	53
57	Cross-Calibration and Long-Term Monitoring of the Microwave Radiometers of ERS, TOPEX, GFO, Jason, and Envisat. Marine Geodesy, 2004, 27, 279-297.	0.9	47
58	Abyss-Lite: A High-resolution Gravimetric and Bathymetric Mission. , 2004, , .		2
59	Bathymetry from space is now possible. Eos, 2003, 84, 37-44.	0.1	17
60	A correspondence of altimetric gravity texture to abyssal hill morphology along the flanks of the Southeast Indian Ridge. Geophysical Research Letters, 2003, 30, .	1.5	8
61	Chapter 12 Bathymetric Estimation. International Geophysics, 2001, , 441-xxxiv.	0.6	27
62	Three-dimensional estimation of elastic thickness under the Louisville Ridge. Journal of Geophysical Research, 2000, 105, 13239-13252.	3.3	32
63	Gravity and the hydrosphere: new frontier. Hydrological Sciences Journal, 1999, 44, 407-415.	1.2	17
64	SEAFLOOR TECTONIC FABRIC FROM SATELLITE ALTIMETRY. Annual Review of Earth and Planetary Sciences, 1998, 26, 697-747.	4.6	61
65	Satellite gravity: insights into the solid Earth and its fluid envelope. Eos, 1998, 79, 237-237.	0.1	5
66	New, improved version of generic mapping tools released. Eos, 1998, 79, 579-579.	0.1	6,259
67	Global Sea Floor Topography from Satellite Altimetry and Ship Depth Soundings. Science, 1997, 277, 1956-1962.	6.0	3,781
68	Marine gravity anomaly from Geosat and ERS 1 satellite altimetry. Journal of Geophysical Research, 1997, 102, 10039-10054.	3.3	1,505
69	A global, self-consistent, hierarchical, high-resolution shoreline database. Journal of Geophysical Research, 1996, 101, 8741-8743.	3.3	994
70	Marine Gravity from Satellite Altimetry over Ocean and Sea Ice. International Association of Geodesy Symposia, 1996, , 12-19.	0.2	2
71	New version of the generic mapping tools. Eos, 1995, 76, 329-329.	0.1	2,031
72	Observational hints for a plume-fed, suboceanic asthenosphere and its role in mantle convection. Journal of Geophysical Research, 1995, 100, 12753-12767.	3.3	144

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73	Comparison of along-track resolution of stacked Geosat, ERS 1, and TOPEX satellite altimeters. Journal of Geophysical Research, 1995, 100, 15117-15127.	3.3	45
74	An empirical thermal history of the Earth's upper mantle. Journal of Geophysical Research, 1994, 99, 13835-13850.	3.3	238
75	Bathymetric prediction from dense satellite altimetry and sparse shipboard bathymetry. Journal of Geophysical Research, 1994, 99, 21803-21824.	3.3	404
76	Flat to steep transition in subduction style. Geology, 1994, 22, 937.	2.0	99
77	Deformation of the oceanic crust between the North American and South American Plates. Journal of Geophysical Research, 1993, 98, 8275-8291.	3.3	48
78	Mapping the Southwest Indian Ridge with Geosat. Eos, 1993, 74, 81-86.	0.1	24
79	On the accuracy of digital bathymetric data. Journal of Geophysical Research, 1993, 98, 9591-9603.	3.3	149
80	Flattening of the sea-floor depth-age curve as a response to asthenospheric flow. Nature, 1992, 359, 524-527.	13.7	125
81	The longevity of the South Pacific isotopic and thermal anomaly. Earth and Planetary Science Letters, 1991, 102, 24-44.	1.8	173
82	Free software helps map and display data. Eos, 1991, 72, 441-441.	0.1	3,255
83	Gridding with continuous curvature splines in tension. Geophysics, 1990, 55, 293-305.	1.4	1,200
84	The Magellan seamounts: Early Cretaceous record of the South Pacific isotopic and thermal anomaly. Journal of Geophysical Research, 1989, 94, 10501-10523.	3.3	105
85	Bathymetry From Satellite Altimetry: Present And Future. , 0, , .		3
86	Accuracy of the 2500 meter Isobath from Satellite Bathymetry. , 0, , .		0