

Walter H F Smith

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6613307/publications.pdf>

Version: 2024-02-01

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	New, improved version of generic mapping tools released. <i>Eos</i> , 1998, 79, 579-579.	0.1	6,259
2	Global Sea Floor Topography from Satellite Altimetry and Ship Depth Soundings. <i>Science</i> , 1997, 277, 1956-1962.	6.0	3,781
3	Free software helps map and display data. <i>Eos</i> , 1991, 72, 441-441.	0.1	3,255
4	Generic Mapping Tools: Improved Version Released. <i>Eos</i> , 2013, 94, 409-410.	0.1	3,003
5	New version of the generic mapping tools. <i>Eos</i> , 1995, 76, 329-329.	0.1	2,031
6	Marine gravity anomaly from Geosat and ERS 1 satellite altimetry. <i>Journal of Geophysical Research</i> , 1997, 102, 10039-10054.	3.3	1,505
7	The Generic Mapping Tools Version 6. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 5556-5564.	1.0	1,246
8	Gridding with continuous curvature splines in tension. <i>Geophysics</i> , 1990, 55, 293-305.	1.4	1,200
9	Global Bathymetry and Elevation Data at 30 Arc Seconds Resolution: SRTM30_PLUS. <i>Marine Geodesy</i> , 2009, 32, 355-371.	0.9	1,168
10	New global marine gravity model from CryoSat-2 and Jason-1 reveals buried tectonic structure. <i>Science</i> , 2014, 346, 65-67.	6.0	1,074
11	A global, self-consistent, hierarchical, high-resolution shoreline database. <i>Journal of Geophysical Research</i> , 1996, 101, 8741-8743.	3.3	994
12	Global marine gravity from retracked Geosat and ERS-1 altimetry: Ridge segmentation versus spreading rate. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	591
13	Global Bathymetry and Topography at 15 Arc Sec: SRTM15+. <i>Earth and Space Science</i> , 2019, 6, 1847-1864.	1.1	440
14	Bathymetric prediction from dense satellite altimetry and sparse shipboard bathymetry. <i>Journal of Geophysical Research</i> , 1994, 99, 21803-21824.	3.3	404
15	An empirical thermal history of the Earth's upper mantle. <i>Journal of Geophysical Research</i> , 1994, 99, 13835-13850.	3.3	238
16	Toward 1-mGal accuracy in global marine gravity from CryoSat-2, Envisat, and Jason-1. <i>The Leading Edge</i> , 2013, 32, 892-899.	0.4	208
17	The longevity of the South Pacific isotopic and thermal anomaly. <i>Earth and Planetary Science Letters</i> , 1991, 102, 24-44.	1.8	173
18	On the accuracy of digital bathymetric data. <i>Journal of Geophysical Research</i> , 1993, 98, 9591-9603.	3.3	149

#	ARTICLE	IF	CITATIONS
19	Observational hints for a plume-fed, suboceanic asthenosphere and its role in mantle convection. <i>Journal of Geophysical Research</i> , 1995, 100, 12753-12767.	3.3	144
20	A consistent data set of Antarctic ice sheet topography, cavity geometry, and global bathymetry. <i>Earth System Science Data</i> , 2010, 2, 261-273.	3.7	129
21	Flattening of the sea-floor depth-age curve as a response to asthenospheric flow. <i>Nature</i> , 1992, 359, 524-527.	13.7	125
22	The Volume of Earth's Ocean. <i>Oceanography</i> , 2010, 23, 112-114.	0.5	125
23	Retracking ERS-1 altimeter waveforms for optimal gravity field recovery. <i>Geophysical Journal International</i> , 2005, 163, 79-89.	1.0	117
24	Satellite altimetry and the intensification of Hurricane Katrina. <i>Eos</i> , 2005, 86, 366.	0.1	111
25	The Magellan seamounts: Early Cretaceous record of the South Pacific isotopic and thermal anomaly. <i>Journal of Geophysical Research</i> , 1989, 94, 10501-10523.	3.3	105
26	An Evaluation of Publicly Available Global Bathymetry Grids. <i>Marine Geophysical Researches</i> , 2006, 27, 19-34.	0.5	101
27	Flat to steep transition in subduction style. <i>Geology</i> , 1994, 22, 937.	2.0	99
28	Retracking CryoSat-2, Envisat and Jason-1 radar altimetry waveforms for improved gravity field recovery. <i>Geophysical Journal International</i> , 2014, 196, 1402-1422.	1.0	97
29	Gravity field recovery from geodetic altimeter missions. <i>Advances in Space Research</i> , 2021, 68, 1059-1072.	1.2	80
30	Global gravity, bathymetry, and the distribution of submarine volcanism through space and time. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	78
31	A global positioning system-based climatology for the total electron content in the ionosphere. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	75
32	Fully Focused SAR Altimetry: Theory and Applications. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 392-406.	2.7	64
33	The Copernicus Sentinel-6 mission: Enhanced continuity of satellite sea level measurements from space. <i>Remote Sensing of Environment</i> , 2021, 258, 112395.	4.6	64
34	SEAFLOOR TECTONIC FABRIC FROM SATELLITE ALTIMETRY. <i>Annual Review of Earth and Planetary Sciences</i> , 1998, 26, 697-747.	4.6	61
35	Conventional Bathymetry, Bathymetry from Space, and Geodetic Altimetry. <i>Oceanography</i> , 2004, 17, 8-23.	0.5	53
36	Bathymetry from space: Rationale and requirements for a new, high-resolution altimetric mission. <i>Comptes Rendus - Geoscience</i> , 2006, 338, 1049-1062.	0.4	50

#	ARTICLE	IF	CITATIONS
37	Deformation of the oceanic crust between the North American and South American Plates. Journal of Geophysical Research, 1993, 98, 8275-8291.	3.3	48
38	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
39	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
40	The Benefits of the Ka-Band as Evidenced from the SARAL/AltiKa Altimetric Mission: Scientific Applications. Remote Sensing, 2018, 10, 163.	1.8	40
41	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
42	Waveform Aliasing in Satellite Radar Altimetry. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1671-1682.	2.7	36
43	Three-dimensional estimation of elastic thickness under the Louisville Ridge. Journal of Geophysical Research, 2000, 105, 13239-13252.	3.3	32
44	How supercontinents and superoceans affect seafloor roughness. Nature, 2008, 456, 938-941.	13.7	28
45	Chapter 12 Bathymetric Estimation. International Geophysics, 2001, , 441-xxxiv.	0.6	27
46	Seafloor in the Malaysia Airlines Flight <sc>MH370</sc> Search Area. Eos, 2014, 95, 173-174.	0.1	27
47	An uncertainty model for deep ocean single beam and multibeam echo sounder data. Marine Geophysical Researches, 2008, 29, 239-250.	0.5	25
48	Mapping the Southwest Indian Ridge with Geosat. Eos, 1993, 74, 81-86.	0.1	24
49	The Contributions of Abyssal Hill Morphology and Noise to Altimetric Gravity Fabric. Oceanography, 2004, 17, 24-37.	0.5	24
50	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
51	Evolution of errors in the altimetric bathymetry model used by Google Earth and GEBCO. Marine Geophysical Researches, 2010, 31, 223-238.	0.5	22
52	The SARAL/AltiKa mission: A step forward to the future of altimetry. Advances in Space Research, 2021, 68, 808-828.	1.2	21
53	Removing Intra-1-Hz Covariant Error to Improve Altimetric Profiles of σ^0 and Sea Surface Height. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 3741-3752.	2.7	20
54	The performance of CryoSat-2 fully-focussed SAR for inland water-level estimation. Remote Sensing of Environment, 2020, 237, 111589.	4.6	20

#	ARTICLE	IF	CITATIONS
55	Improved Bathymetric Prediction Using Geological Information: SYN-BATH. Earth and Space Science, 2022, 9, .	1.1	19
56	Radially symmetric coherence between satellite gravity and multibeam bathymetry grids. Marine Geophysical Researches, 2012, 33, 223-227.	0.5	18
57	Slope correction for ocean radar altimetry. Journal of Geodesy, 2014, 88, 765-771.	1.6	18
58	Gravity and the hydrosphere: new frontier. Hydrological Sciences Journal, 1999, 44, 407-415.	1.2	17
59	Bathymetry from space is now possible. Eos, 2003, 84, 37-44.	0.1	17
60	Introduction to This Special Issue on Bathymetry from Space. Oceanography, 2004, 17, 6-7.	0.5	17
61	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
62	Some remarks on resolving seamounts in satellite gravity. Geophysical Research Letters, 2007, 34, .	1.5	12
63	Detecting small seamounts in AltiKa repeat cycle data. Marine Geophysical Researches, 2016, 37, 349-359.	0.5	10
64	Impact of synthetic abyssal hill roughness on resolved motions in numerical global ocean tide models. Ocean Modelling, 2017, 112, 1-16.	1.0	10
65	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
66	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
67	Reply to Comment on "Satellite altimetry and the intensification of Hurricane Katrina". Eos, 2006, 87, 89-89.	0.1	8
68	Mesoscale ocean dynamics observed by satellite altimeters in non-repeat orbits. Geophysical Research Letters, 2009, 36, .	1.5	8
69	Significant improvements in marine gravity from ongoing satellite missions. Marine Geophysical Researches, 2013, 34, 137-146.	0.5	8
70	Spectral windows for satellite radar altimeters. Advances in Space Research, 2018, 62, 1576-1588.	1.2	8
71	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
72	First Coastal Altimetry Workshop: Cooperative Institute for Oceanographic Satellite Studies/National Oceanic and Atmospheric Administration Coastal Altimeter Workshop; 5-7 February 2008, Silver Spring, Maryland. Eos, 2008, 89, 380-380.	0.1	6

#	ARTICLE	IF	CITATIONS
73	Satellite gravity: insights into the solid Earth and its fluid envelope. <i>Eos</i> , 1998, 79, 237-237.	0.1	5
74	The Marine Geoid and Satellite Altimetry. , 2010, , 181-193.		5
75	Direct conversion of latitude and height from one ellipsoid to another. <i>Journal of Geodesy</i> , 2022, 96, 1.	1.6	4
76	Bathymetry From Satellite Altimetry: Present And Future. , 0, , .		3
77	A Method of Stacking AltiKa Repeat Cycle Data that May Reveal 75,000+ Possible Small Seamounts. <i>Earth and Space Science</i> , 2018, 5, 964-969.	1.1	3
78	Airline Flight Paths over the Unmapped Ocean. <i>Eos</i> , 2017, , .	0.1	3
79	Abyss-Lite: A High-resolution Gravimetric and Bathymetric Mission. , 2004, , .		2
80	Orbit Accuracy Requirement for ABYSS: The Space Station Radar Altimeter to Map Global Bathymetry. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2009, 6, 653-657.	1.4	2
81	Marine Gravity from Satellite Altimetry over Ocean and Sea Ice. <i>International Association of Geodesy Symposia</i> , 1996, , 12-19.	0.2	2
82	The second-order effect of Earth's rotation on Cryosat-2 fully focused SAR processing. <i>Journal of Geodesy</i> , 2020, 94, 1.	1.6	1
83	Accuracy of the 2500 meter Isobath from Satellite Bathymetry. , 0, , .		0
84	Corrections to "Removing Intra-1-Hz Covariant Error to Improve Altimetric Profiles of σ^0 and Sea Surface Height" [Jun 19 DOI: 10.1109/TGRS.2018.2886998]. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 8327-8327.	2.7	0
85	Comparison of Stacked Sentinel-3 A&B and AltiKa Repeat Cycle Data. <i>Earth and Space Science</i> , 2022, 9, e2021EA001892.	1.1	0
86	Arctic Sea-Ice Surface Elevation Distribution from NASA's Operation IceBridge ATM Data. <i>Remote Sensing</i> , 2022, 14, 3011.	1.8	0