

Walter H F Smith

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

23,460
citations

36
h-index

93
g-index

93
ext. papers

26,149
ext. citations

5.8
avg. IF

7.18
L-index

#	Paper	IF	Citations
85	Improved Bathymetric Prediction Using Geological Information: SYN-BATH. <i>Earth and Space Science</i> , 2022 , 9,	3.1	5
84	Direct conversion of latitude and height from one ellipsoid to another. <i>Journal of Geodesy</i> , 2022 , 96, 1	4.5	0
83	The Copernicus Sentinel-6 mission: Enhanced continuity of satellite sea level measurements from space. <i>Remote Sensing of Environment</i> , 2021 , 258, 112395	13.2	17
82	The SARAL/AltiKa mission: A step forward to the future of altimetry. <i>Advances in Space Research</i> , 2021 , 68, 808-828	2.4	7
81	Gravity field recovery from geodetic altimeter missions. <i>Advances in Space Research</i> , 2021 , 68, 1059-1072.	2.4	34
80	The Unique Role of the Jason Geodetic Missions for high Resolution Gravity Field and Mean Sea Surface Modelling. <i>Remote Sensing</i> , 2021 , 13, 646	5	4
79	The second-order effect of Earth's rotation on Cryosat-2 fully focused SAR processing. <i>Journal of Geodesy</i> , 2020 , 94, 1	4.5	0
78	The performance of CryoSat-2 fully-focussed SAR for inland water-level estimation. <i>Remote Sensing of Environment</i> , 2020 , 237, 111589	13.2	9
77	The Generic Mapping Tools Version 6. <i>Geochemistry, Geophysics, Geosystems</i> , 2019 , 20, 5556-5564	3.6	425
76	Removing Intra-1-Hz Covariant Error to Improve Altimetric Profiles of σ^0 and Sea Surface Height. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019 , 57, 3741-3752	8.1	16
75	Global Bathymetry and Topography at 15-ArcSec: SRTM15+. <i>Earth and Space Science</i> , 2019 , 6, 1847-1864.	3.1	158
74	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	8.1	
73	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019 , 57, 2610-2617	8.1	6
72	Spectral windows for satellite radar altimeters. <i>Advances in Space Research</i> , 2018 , 62, 1576-1588	2.4	7
71	A Semianalytical Model of the Synthetic Aperture, Interferometric Radar Altimeter Mean Echo, and Echo Cross-Product and Its Statistical Fluctuations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2018 , 56, 2539-2553	8.1	7
70	The Benefits of the Ka-Band as Evidenced from the SARAL/AltiKa Altimetric Mission: Scientific Applications. <i>Remote Sensing</i> , 2018 , 10, 163	5	32
69	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	3.1	3

68	Impact of synthetic abyssal hill roughness on resolved motions in numerical global ocean tide models. <i>Ocean Modelling</i> , 2017 , 112, 1-16	3	9
67	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017 , 55, 392-406	8.1	41
66	Airline Flight Paths over the Unmapped Ocean. <i>Eos</i> , 2017 ,	1.5	3
65	Detecting small seamounts in AltiKa repeat cycle data. <i>Marine Geophysical Researches</i> , 2016 , 37, 349-359	2.3	7
64	Resolution of Seamount Geoid Anomalies Achieved by the SARAL/AltiKa and Envisat RA2 Satellite Radar Altimeters. <i>Marine Geodesy</i> , 2015 , 38, 644-671	1.2	18
63	Waveform Aliasing in Satellite Radar Altimetry. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2015 , 53, 1671-1682	8.1	26
62	Marine geophysics. New global marine gravity model from CryoSat-2 and Jason-1 reveals buried tectonic structure. <i>Science</i> , 2014 , 346, 65-7	33.3	767
61	Slope correction for ocean radar altimetry. <i>Journal of Geodesy</i> , 2014 , 88, 765-771	4.5	13
60	Retracking CryoSat-2, Envisat and Jason-1 radar altimetry waveforms for improved gravity field recovery. <i>Geophysical Journal International</i> , 2014 , 196, 1402-1422	2.6	71
59	Seafloor in the Malaysia Airlines Flight MH370 Search Area. <i>Eos</i> , 2014 , 95, 173-174	1.5	15
58	Toward 1-mGal accuracy in global marine gravity from CryoSat-2, Envisat, and Jason-1. <i>The Leading Edge</i> , 2013 , 32, 892-899	1	151
57	Calibration of the CryoSat-2 Interferometer and Measurement of Across-Track Ocean Slope. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013 , 51, 57-72	8.1	33
56	Significant improvements in marine gravity from ongoing satellite missions. <i>Marine Geophysical Researches</i> , 2013 , 34, 137-146	2.3	6
55	Generic Mapping Tools: Improved Version Released. <i>Eos</i> , 2013 , 94, 409-410	1.5	2195
54	Radially symmetric coherence between satellite gravity and multibeam bathymetry grids. <i>Marine Geophysical Researches</i> , 2012 , 33, 223-227	2.3	13
53	The Volume of Earth's Ocean. <i>Oceanography</i> , 2010 , 23, 112-114	2.3	102
52	A consistent dataset of Antarctic ice sheet topography, cavity geometry, and global bathymetry 2010 ,		18
51	A global positioning system-based climatology for the total electron content in the ionosphere. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		61

50	Evolution of errors in the altimetric bathymetry model used by Google Earth and GEBCO. <i>Marine Geophysical Researches</i> , 2010 , 31, 223-238	2.3	15
49	A consistent data set of Antarctic ice sheet topography, cavity geometry, and global bathymetry. <i>Earth System Science Data</i> , 2010 , 2, 261-273	10.5	116
48	The Marine Geoid and Satellite Altimetry 2010 , 181-193		5
47	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	4.1	2
46	Global Bathymetry and Elevation Data at 30 Arc Seconds Resolution: SRTM30_PLUS. <i>Marine Geodesy</i> , 2009 , 32, 355-371	1.2	916
45	Mesoscale ocean dynamics observed by satellite altimeters in non-repeat orbits. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	8
44	Global marine gravity from retracked Geosat and ERS-1 altimetry: Ridge segmentation versus spreading rate. <i>Journal of Geophysical Research</i> , 2009 , 114,		501
43	How supercontinents and superoceans affect seafloor roughness. <i>Nature</i> , 2008 , 456, 938-41	50.4	24
42	First Coastal Altimetry Workshop: Cooperative Institute for Oceanographic Satellite Studies/National Oceanic and Atmospheric Administration Coastal Altimeter Workshop; 5 th February 2008, Silver Spring, Maryland. <i>Eos</i> , 2008 , 89, 380-380	1.5	5
41	An uncertainty model for deep ocean single beam and multibeam echo sounder data. <i>Marine Geophysical Researches</i> , 2008 , 29, 239-250	2.3	18
40	Some remarks on resolving seamounts in satellite gravity. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	11
39	Global gravity, bathymetry, and the distribution of submarine volcanism through space and time. <i>Journal of Geophysical Research</i> , 2006 , 111,		56
38	Reply to Comment on Satellite altimetry and the intensification of Hurricane Katrina. <i>Eos</i> , 2006 , 87, 89-89	1.5	5
37	Bathymetry from space: Rationale and requirements for a new, high-resolution altimetric mission. <i>Comptes Rendus - Geoscience</i> , 2006 , 338, 1049-1062	1.4	35
36	An Evaluation of Publicly Available Global Bathymetry Grids. <i>Marine Geophysical Researches</i> , 2006 , 27, 19-34	2.3	85
35	Satellite altimetry and the intensification of Hurricane Katrina. <i>Eos</i> , 2005 , 86, 366	1.5	89
34	Retracking ERS-1 altimeter waveforms for optimal gravity field recovery. <i>Geophysical Journal International</i> , 2005 , 163, 79-89	2.6	100
33	The Contributions of Abyssal Hill Morphology and Noise to Altimetric Gravity Fabric. <i>Oceanography</i> , 2004 , 17, 24-37	2.3	22

32	Introduction to This Special Issue on Bathymetry from Space. <i>Oceanography</i> , 2004 , 17, 6-7	2.3	13
31	Conventional Bathymetry, Bathymetry from Space, and Geodetic Altimetry. <i>Oceanography</i> , 2004 , 17, 8-23	2.3	39
30	Cross-Calibration and Long-Term Monitoring of the Microwave Radiometers of ERS, TOPEX, GFO, Jason, and Envisat. <i>Marine Geodesy</i> , 2004 , 27, 279-297	1.2	45
29	Abyss-Lite: A High-resolution Gravimetric and Bathymetric Mission 2004 ,		1
28	Bathymetry from space is now possible. <i>Eos</i> , 2003 , 84, 37-44	1.5	14
27	A correspondence of altimetric gravity texture to abyssal hill morphology along the flanks of the Southeast Indian Ridge. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	7
26	Chapter 12 Bathymetric Estimation. <i>International Geophysics</i> , 2001 , 441-xxxiv		19
25	Three-dimensional estimation of elastic thickness under the Louisville Ridge. <i>Journal of Geophysical Research</i> , 2000 , 105, 13239-13252		30
24	Gravity and the hydrosphere: new frontier. <i>Hydrological Sciences Journal</i> , 1999 , 44, 407-415	3.5	14
23	SEAFLOOR TECTONIC FABRIC FROM SATELLITE ALTIMETRY. <i>Annual Review of Earth and Planetary Sciences</i> , 1998 , 26, 697-747	15.3	49
22	Satellite gravity: Insights into the Solid Earth and its fluid envelope. <i>Eos</i> , 1998 , 79, 237-237	1.5	5
21	New, improved version of generic mapping tools released. <i>Eos</i> , 1998 , 79, 579-579	1.5	4984
20	Global Sea Floor Topography from Satellite Altimetry and Ship Depth Soundings. <i>Science</i> , 1997 , 277, 1956-1962	33.3	3268
19	Marine gravity anomaly from Geosat and ERS 1 satellite altimetry. <i>Journal of Geophysical Research</i> , 1997 , 102, 10039-10054		1274
18	A global, self-consistent, hierarchical, high-resolution shoreline database. <i>Journal of Geophysical Research</i> , 1996 , 101, 8741-8743		711
17	Marine Gravity from Satellite Altimetry over Ocean and Sea Ice. <i>International Association of Geodesy Symposia</i> , 1996 , 12-19	0.8	1
16	New version of the generic mapping tools. <i>Eos</i> , 1995 , 76, 329-329	1.5	1811
15	Observational hints for a plume-fed, suboceanic asthenosphere and its role in mantle convection. <i>Journal of Geophysical Research</i> , 1995 , 100, 12753-12767		126

14	Comparison of along-track resolution of stacked Geosat, ERS 1, and TOPEX satellite altimeters. <i>Journal of Geophysical Research</i> , 1995 , 100, 15117-15127		41
13	An empirical thermal history of the Earth's upper mantle. <i>Journal of Geophysical Research</i> , 1994 , 99, 13835-13850		50
12	Bathymetric prediction from dense satellite altimetry and sparse shipboard bathymetry. <i>Journal of Geophysical Research</i> , 1994 , 99, 21803-21824		323
11	Flat to steep transition in subduction style. <i>Geology</i> , 1994 , 22, 937	5	84
10	Deformation of the oceanic crust between the North American and South American Plates. <i>Journal of Geophysical Research</i> , 1993 , 98, 8275-8291		45
9	Mapping the Southwest Indian Ridge with Geosat. <i>Eos</i> , 1993 , 74, 81-86	1.5	21
8	On the accuracy of digital bathymetric data. <i>Journal of Geophysical Research</i> , 1993 , 98, 9591		119
7	Flattening of the sea-floor depth-age curve as a response to asthenospheric flow. <i>Nature</i> , 1992 , 359, 524-527	50.4	115
6	The longevity of the South Pacific isotopic and thermal anomaly. <i>Earth and Planetary Science Letters</i> , 1991 , 102, 24-44	5.3	152
5	Free software helps map and display data. <i>Eos</i> , 1991 , 72, 441-441	1.5	2559
4	Gridding with continuous curvature splines in tension. <i>Geophysics</i> , 1990 , 55, 293-305	3.1	1004
3	The Magellan seamounts: Early Cretaceous record of the South Pacific isotopic and thermal anomaly. <i>Journal of Geophysical Research</i> , 1989 , 94, 10501-10523		89
2	Bathymetry from satellite altimetry: present and future		2
1	Comparison of Stacked Sentinel-3 A&B and AltiKa Repeat Cycle Data. <i>Earth and Space Science</i> , e2021EA001892		