

# Ben Smith

## List of Publications by Year in descending order

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Version: 2024-02-01

43  
papers

7,104  
citations

159585  
30  
h-index

265206  
42  
g-index

66  
all docs

66  
docs citations

66  
times ranked

5690  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Reconciled Estimate of Ice-Sheet Mass Balance. <i>Science</i> , 2012, 338, 1183-1189.	12.6	1,246
2	Marine Ice Sheet Collapse Potentially Under Way for the Thwaites Glacier Basin, West Antarctica. <i>Science</i> , 2014, 344, 735-738.	12.6	651
3	The Ice, Cloud, and land Elevation Satellite-2 (ICESat-2): Science requirements, concept, and implementation. <i>Remote Sensing of Environment</i> , 2017, 190, 260-273.	11.0	600
4	An automated, open-source pipeline for mass production of digital elevation models (DEMs) from very-high-resolution commercial stereo satellite imagery. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2016, 116, 101-117.	11.1	447
5	The Greenland Ice Mapping Project (GIMP) land classification and surface elevation data sets. <i>Cryosphere</i> , 2014, 8, 1509-1518.	3.9	401
6	Seasonal Speedup Along the Western Flank of the Greenland Ice Sheet. <i>Science</i> , 2008, 320, 781-783.	12.6	383
7	The Reference Elevation Model of Antarctica. <i>Cryosphere</i> , 2019, 13, 665-674.	3.9	357
8	An inventory of active subglacial lakes in Antarctica detected by ICESat (2003–2008). <i>Journal of Glaciology</i> , 2009, 55, 573-595.	2.2	291
9	Pervasive ice sheet mass loss reflects competing ocean and atmosphere processes. <i>Science</i> , 2020, 368, 1239-1242.	12.6	261
10	Increased flow speed on a large East Antarctic outlet glacier caused by subglacial floods. <i>Nature Geoscience</i> , 2008, 1, 827-831.	12.9	242
11	Continued evolution of Jakobshavn Isbrae following its rapid speedup. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	202
12	Sensitivity of 21st century sea level to ocean-induced thinning of Pine Island Glacier, Antarctica. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	199
13	Distinct patterns of seasonal Greenland glacier velocity. <i>Geophysical Research Letters</i> , 2014, 41, 7209-7216.	4.0	190
14	Observed rapid bedrock uplift in Amundsen Sea Embayment promotes ice-sheet stability. <i>Science</i> , 2018, 360, 1335-1339.	12.6	147
15	Seasonal to multiyear variability of glacier surface velocity, terminus position, and sea ice/ice margin change in northwest Greenland. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 818-833.	2.8	121
16	Brief Communication: Further summer speedup of Jakobshavn Isbr�. <i>Cryosphere</i> , 2014, 8, 209-214.	3.9	120
17	Airborne radar and ice-core observations of annual snow accumulation over Thwaites Glacier, West Antarctica confirm the spatiotemporal variability of global and regional atmospheric models. <i>Geophysical Research Letters</i> , 2013, 40, 3649-3654.	4.0	119
18	Mass balance of Greenland's three largest outlet glaciers, 2000-2010. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	116

#	ARTICLE	IF	CITATIONS
19	Land ice height-retrieval algorithm for NASA's ICESat-2 photon-counting laser altimeter. Remote Sensing of Environment, 2019, 233, 111352.	11.0	113
20	Assessment of ICESat's Ice Sheet Surface Heights, Based on Comparisons Over the Interior of the Antarctic Ice Sheet. Geophysical Research Letters, 2019, 46, 13072-13078.	4.0	102
21	Regularized Coulomb Friction Laws for Ice Sheet Sliding: Application to Pine Island Glacier, Antarctica. Geophysical Research Letters, 2019, 46, 4764-4771.	4.0	93
22	Constraining the recent mass balance of Pine Island and Thwaites glaciers, West Antarctica, with airborne observations of snow accumulation. Cryosphere, 2014, 8, 1375-1392.	3.9	90
23	Influence of ice-sheet geometry and supraglacial lakes on seasonal ice-flow variability. Cryosphere, 2013, 7, 1185-1192.	3.9	80
24	Connected subglacial lake drainage beneath Thwaites Glacier, West Antarctica. Cryosphere, 2017, 11, 451-467.	3.9	70
25	The Scientific Legacy of NASA's Operation IceBridge. Reviews of Geophysics, 2021, 59, e2020RG000712.	23.0	49
26	Mass balance of the ice sheets and glaciers – Progress since AR5 and challenges. Earth-Science Reviews, 2020, 201, 102976.	9.1	44
27	Ice-shelf retreat drives recent Pine Island Glacier speedup. Science Advances, 2021, 7, .	10.3	44
28	Ice shelf basal melt rates from a high-resolution digital elevation model (DEM) record for Pine Island Glacier, Antarctica. Cryosphere, 2019, 13, 2633-2656.	3.9	42
29	A low-frequency ice-penetrating radar system adapted for use from an airplane: test results from Bering and Malaspina Glaciers, Alaska, USA. Annals of Glaciology, 2009, 50, 93-97.	1.4	41
30	A decade of variability on Jakobshavn Isbr�: ocean temperatures pace speed through influence on mantle rigidity. Cryosphere, 2020, 14, 211-227.	3.9	39
31	Comparisons of Satellite and Airborne Altimetry With Ground-Based Data From the Interior of the Antarctic Ice Sheet. Geophysical Research Letters, 2021, 48, e2020GL090572.	4.0	26
32	Brief Communication: Sudden drainage of a subglacial lake beneath the Greenland Ice Sheet. Cryosphere, 2015, 9, 103-108.	3.9	24
33	Changes in flow of Crosson and Dotson ice shelves, West Antarctica, in response to elevated melt. Cryosphere, 2018, 12, 1415-1431.	3.9	16
34	Measuring Height Change Around the Periphery of the Greenland Ice Sheet With Radar Altimetry. Frontiers in Earth Science, 2019, 7, .	1.8	16
35	Brief communication: Heterogenous thinning and subglacial lake activity on Thwaites Glacier, West Antarctica. Cryosphere, 2020, 14, 4603-4609.	3.9	13
36	Modeling biases in laser-altimetry measurements caused by scattering of green light in snow. Remote Sensing of Environment, 2018, 215, 398-410.	11.0	10

#	ARTICLE	IF	CITATIONS
37	Melt at grounding line controls observed and future retreat of Smith, Pope, and Kohler glaciers. Cryosphere, 2019, 13, 2817-2834.	3.9	10
38	Abrupt Common Era hydroclimate shifts drive west Greenland ice cap change. Nature Geoscience, 2021, 14, 756-761.	12.9	9
39	Ocean-induced melt volume directly paces ice loss from Pine Island Glacier. Science Advances, 2021, 7, eabi5738.	10.3	9
40	A Generalized Interpolation Material Point Method for Shallow Ice Shelves. 2: Anisotropic Nonlocal Damage Mechanics and Rift Propagation. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002292.	3.8	6
41	Light propagation in firn: application to borehole video. Journal of Glaciology, 2010, 56, 614-624.	2.2	3
42	A Generalized Interpolation Material Point Method for Shallow Ice Shelves. 1: Shallow Shelf Approximation and Ice Thickness Evolution. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002277.	3.8	2
43	Repeat warming in Greenland. Nature Geoscience, 2012, 5, 369-370.	12.9	0