

Knut Christianson

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,939
citations

218677

26
h-index

254184

43
g-index

49
all docs

49
docs citations

49
times ranked

2065
citing authors

#	ARTICLE	IF	CITATIONS
1	A microbial ecosystem beneath the West Antarctic ice sheet. <i>Nature</i> , 2014, 512, 310-313.	27.8	255
2	How much, how fast?: A science review and outlook for research on the instability of Antarctica's Thwaites Glacier in the 21st century. <i>Global and Planetary Change</i> , 2017, 153, 16-34.	3.5	118
3	Dynamic (in)stability of Thwaites Glacier, West Antarctica. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 638-655.	2.8	88
4	Oceanic Forcing of Ice-Sheet Retreat: West Antarctica and More. <i>Annual Review of Earth and Planetary Sciences</i> , 2015, 43, 207-231.	11.0	83
5	Ice-shelf tidal flexure and subglacial pressure variations. <i>Earth and Planetary Science Letters</i> , 2013, 361, 422-428.	4.4	79
6	Five decades of radioglaciology. <i>Annals of Glaciology</i> , 2020, 61, 1-13.	1.4	74
7	Understanding of Contemporary Regional Sea-Level Change and the Implications for the Future. <i>Reviews of Geophysics</i> , 2020, 58, e2019RG000672.	23.0	74
8	Dilatant till facilitates ice-stream flow in northeast Greenland. <i>Earth and Planetary Science Letters</i> , 2014, 401, 57-69.	4.4	73
9	High basal melting forming a channel at the grounding line of Ross Ice Shelf, Antarctica. <i>Geophysical Research Letters</i> , 2016, 43, 250-255.	4.0	72
10	Subglacial Lake Whillans – Ice-penetrating radar and GPS observations of a shallow active reservoir beneath a West Antarctic ice stream. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 237-245.	4.4	66
11	Ocean Stratification and Low Melt Rates at the Ross Ice Shelf Grounding Zone. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7438-7452.	2.6	61
12	Dynamics of stick-slip motion, Whillans Ice Stream, Antarctica. <i>Earth and Planetary Science Letters</i> , 2011, 305, 283-289.	4.4	60
13	Estuaries beneath ice sheets. <i>Geology</i> , 2013, 41, 1159-1162.	4.4	58
14	Initial results from geophysical surveys and shallow coring of the Northeast Greenland Ice Stream (NEGIS). <i>Cryosphere</i> , 2014, 8, 1275-1287.	3.9	56
15	Subglacial Lake Whillans – Seismic observations of a shallow active reservoir beneath a West Antarctic ice stream. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 201-209.	4.4	54
16	Basal conditions at the grounding zone of Whillans Ice Stream, West Antarctica, from ice-penetrating radar. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1954-1983.	2.8	50
17	Linking postglacial landscapes to glacier dynamics using swath radar at Thwaites Glacier, Antarctica. <i>Geology</i> , 2020, 48, 268-272.	4.4	49
18	Ice sheet grounding zone stabilization due to till compaction. <i>Geophysical Research Letters</i> , 2013, 40, 5406-5411.	4.0	40

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19	Power loss in dipping internal reflectors, imaged using ice-penetrating radar. <i>Annals of Glaciology</i> , 2014, 55, 49-56.	1.4	40
20	Basal conditions and ice dynamics inferred from radar-derived internal stratigraphy of the northeast Greenland ice stream. <i>Annals of Glaciology</i> , 2014, 55, 127-137.	1.4	40
21	Relating bed character and subglacial morphology using seismic data from Thwaites Glacier, West Antarctica. <i>Earth and Planetary Science Letters</i> , 2019, 507, 199-206.	4.4	40
22	Dynamic perennial firn aquifer on an Arctic glacier. <i>Geophysical Research Letters</i> , 2015, 42, 1418-1426.	4.0	37
23	Accelerated subglacial erosion in response to stick-slip motion. <i>Geology</i> , 2013, 41, 159-162.	4.4	36
24	Sediment deposition at the modern grounding zone of Whillans Ice Stream, West Antarctica. <i>Geophysical Research Letters</i> , 2013, 40, 3934-3939.	4.0	33
25	Ice-cliff failure via retrogressive slumping. <i>Geology</i> , 2019, 47, 449-452.	4.4	30
26	Biogeochemical Connectivity Between Freshwater Ecosystems beneath the West Antarctic Ice Sheet and the Sub-ice Marine Environment. <i>Global Biogeochemical Cycles</i> , 2020, 34, no.	4.9	29
27	Tidally driven ice speed variation at Helheim Glacier, Greenland, observed with terrestrial radar interferometry. <i>Journal of Glaciology</i> , 2015, 61, 301-308.	2.2	28
28	Enhanced Firn Densification in High Accumulation Shear Margins of the NE Greenland Ice Stream. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 365-382.	2.8	20
29	Thermal Weakening, Convergent Flow, and Vertical Heat Transport in the Northeast Greenland Ice Stream Shear Margins. <i>Geophysical Research Letters</i> , 2019, 46, 8184-8193.	4.0	19
30	GPS-derived estimates of surface mass balance and ocean-induced basal melt for Pine Island Glacier ice shelf, Antarctica. <i>Cryosphere</i> , 2017, 11, 2655-2674.	3.9	16
31	Morphology of basal crevasses at the grounding zone of Whillans Ice Stream, West Antarctica. <i>Annals of Glaciology</i> , 2014, 55, 57-63.	1.4	15
32	Bathymetry and geological structures beneath the Ross Ice Shelf at the mouth of Whillans Ice Stream, West Antarctica, modeled from ground-based gravity measurements. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 4535-4546.	3.4	14
33	Influence of North Atlantic climate variability on glacier mass balance in Norway, Sweden and Svalbard. <i>Journal of Glaciology</i> , 2019, 65, 580-594.	2.2	13
34	ImpDAR: an open-source impulse radar processor. <i>Annals of Glaciology</i> , 2020, 61, 114-123.	1.4	13
35	Brief communication: Heterogenous thinning and subglacial lake activity on Thwaites Glacier, West Antarctica. <i>Cryosphere</i> , 2020, 14, 4603-4609.	3.9	13
36	Possible Role for Tectonics in the Evolving Stability of the Greenland Ice Sheet. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 97-115.	2.8	12

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37	Bedforms of Thwaites Glacier, West Antarctica: Character and Origin. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2021JF006339.	2.8	12
38	Wet subglacial bedforms of the NE Greenland Ice Stream shear margins. <i>Annals of Glaciology</i> , 2019, 60, 91-99.	1.4	10
39	Effect of horizontal divergence on estimates of firn-air content. <i>Journal of Glaciology</i> , 2021, 67, 287-296.	2.2	10
40	Constraining attenuation uncertainty in common midpoint radar surveys of ice sheets. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1876-1890.	2.8	9
41	A framework for attenuation method selection evaluated with ice-penetrating radar data at South Pole Lake. <i>Annals of Glaciology</i> , 2020, 61, 176-187.	1.4	9
42	The contrasting response of outlet glaciers to interior and ocean forcing. <i>Cryosphere</i> , 2020, 14, 2515-2535.	3.9	8
43	Grounding zone subglacial properties from calibrated active-source seismic methods. <i>Cryosphere</i> , 2021, 15, 1863-1880.	3.9	6
44	Persistent tracers of historic ice flow in glacial stratigraphy near Kamb Ice Stream, West Antarctica. <i>Cryosphere</i> , 2018, 12, 2821-2829.	3.9	5
45	A low-cost autonomous rover for polar science. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2019, 8, 149-159.	1.6	4
46	Geophysics and Thermodynamics at South Pole Lake Indicate Stability and a Regionally Thawed Bed. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	4
47	The Impact of Basal Roughness on Inland Thwaites Glacier Sliding. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	3
48	Identifying flowlines and limitations of flux analyses in the interior of Thwaites Glacier, Antarctica. <i>Annals of Glaciology</i> , 2014, 55, 107-114.	1.4	1