Kenichi Matsuoka

List of Publications by Year
in descending order

66 papers	3,667 citations	257450 24 h-index	138484 58 g-index
77 all docs	77 docs citations	77 times ranked	3177 citing authors

#	Article	IF	Citations
1	Bedmap2: improved ice bed, surface and thickness datasets for Antarctica. Cryosphere, 2013, 7, 375-393.	3.9	1,455
2	Deep glacial troughs and stabilizing ridges unveiled beneath the margins of the Antarctic ice sheet. Nature Geoscience, 2020, 13, 132-137.	12.9	431
3	Modeling englacial radar attenuation at Siple Dome, West Antarctica, using ice chemistry and temperature data. Journal of Geophysical Research, 2007, 112, .	3.3	114
4	Quantarctica, an integrated mapping environment for Antarctica, the Southern Ocean, and sub-Antarctic islands. Environmental Modelling and Software, 2021, 140, 105015.	4.5	106
5	Antarctic ice rises and rumples: Their properties and significance for ice-sheet dynamics and evolution. Earth-Science Reviews, 2015, 150, 724-745.	9.1	103
6	Crystal orientation fabrics within the Antarctic ice sheet revealed by a multipolarization plane and dual-frequency radar survey. Journal of Geophysical Research, 2003, 108, .	3.3	77
7	Radio-wave depolarization and scattering within ice sheets: a matrix-based model to link radar and ice-core measurements and its application. Journal of Glaciology, 2006, 52, 407-424.	2.2	76
8	Predicting radar attenuation within the Antarctic ice sheet. Earth and Planetary Science Letters, 2012, 359-360, 173-183.	4.4	72
9	Pitfalls in radar diagnosis of ice-sheet bed conditions: Lessons from englacial attenuation models. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	62
10	Effects of Birefringence Within Ice Sheets on Obliquely Propagating Radio Waves. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 1429-1443.	6.3	45
11	Anomalously high geothermal flux near the South Pole. Scientific Reports, 2018, 8, 16785.	3.3	45
12	High variability of climate and surface mass balance induced by Antarctic ice rises. Journal of Glaciology, 2014, 60, 1101-1110.	2.2	43
13	Estimating englacial radar attenuation using depth profiles of the returned power, central West Antarctica. Journal of Geophysical Research, 2010, 115, .	3.3	42
14	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
15	Recovery Lakes, East Antarctica: Radar assessment of sub-glacial water extent. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	41
16	Complex network of channels beneath an Antarctic ice shelf. Geophysical Research Letters, 2014, 41, 1209-1215.	4.0	38
17	Radar diagnosis of the subglacial conditions in Dronning Maud Land, East Antarctica. Cryosphere, 2012, 6, 1203-1219.	3.9	36
18	Radar characterization of the basal interface across the grounding zone of an ice-rise promontory in East Antarctica. Annals of Glaciology, 2012, 53, 29-34.	1.4	33

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19	Rapid development of anisotropic iceâ€crystalâ€alignment fabrics inferred from englacial radar polarimetry, central West Antarctica. Journal of Geophysical Research, 2012, 117, .	3.3	33
20	Actively evolving subglacial conduits and eskers initiate ice shelf channels at an Antarctic grounding line. Nature Communications, 2017, 8, 15228.	12.8	32
21	Glacio-meteorological conditions in the vicinity of the Belgian Princess Elisabeth Station, Antarctica. Antarctic Science, 2010, 22, 79.	0.9	31
22	Spatial variation of englacial radar attenuation: Modeling approach and application to the Vostok flowline. Journal of Geophysical Research, 2012, 117, .	3.3	31
23	Evolution of Derwael Ice Rise in Dronning Maud Land, Antarctica, over the last millennia. Journal of Geophysical Research F: Earth Surface, 2015, 120, 564-579.	2.8	31
24	Exploring the Recovery Lakes region and interior Dronning Maud Land, East Antarctica, with airborne gravity, magnetic and radar measurements. Geological Society Special Publication, 2018, 461, 23-34.	1.3	26
25	Mass Balance Features Derived from a Firn Core at Hielo PatagÃ³nico Norte, South America. Arctic, Antarctic, and Alpine Research, 1999, 31, 333-340.	1.1	24
26	Modelling dynamics of glaciers in volcanic craters. Journal of Glaciology, 2000, 46, 177-187.	2.2	24
27	A ground-based, multi-frequency ice-penetrating radar system. Annals of Glaciology, 2002, 34, 171-176.	1.4	24
28	Ice-flow-induced scattering zone within the Antarctic ice sheet revealed by high-frequency airborne radar. Journal of Glaciology, 2004, 50, 382-388.	2.2	23
29	Mass Balance Features Derived from a Firn Core at Hielo Patagonico Norte, South America. Arctic, Antarctic, and Alpine Research, 1999, 31, 333.	1.1	23
30	Scattering of VHF radio waves from within an ice sheet containing the vertical-girdle-type ice fabric and anisotropic reflection boundaries. Annals of Glaciology, 2003, 37, 305-316.	1.4	22
31	Transition of flow regime along a marine-terminating outlet glacier in East Antarctica. Cryosphere, 2014, 8, 867-875.	3.9	22
32	Subglacial Geology and Geomorphology of the Pensacolaâ€Pole Basin, East Antarctica. Geochemistry, Geophysics, Geosystems, 2019, 20, 2786-2807.	2.5	22
33	Scattering of VHF radio waves from within the top 700 m of the Antarctic ice sheet and its relation to the depositional environment: a case-study along the Syowaâ€"Mizuhoâ€"Dome Fuji traverse. Annals of Glaciology, 2002, 34, 157-164.	1.4	19
34	Radar detection of accreted ice over Lake Vostok, Antarctica. Earth and Planetary Science Letters, 2009, 282, 222-233.	4.4	19
35	Sonic methods for measuring crystal orientation fabric in ice, and results from the West Antarctic ice sheet (WAIS) Divide. Journal of Glaciology, 2017, 63, 603-617.	2.2	19
36	Characteristics of ice rises and ice rumples in Dronning Maud Land and Enderby Land, Antarctica. Journal of Glaciology, 2020, 66, 1064-1078.	2.2	19

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37	Subglacial topography, ice thickness, and bathymetry of Kongsfjorden, northwestern Svalbard. Earth System Science Data, 2018, 10, 1769-1781.	9.9	19
38	Millennially averaged accumulation rates for the Vostok Subglacial Lake region inferred from deep internal layers. Annals of Glaciology, 2009, 50, 25-34.	1.4	18
39	Melting and refreezing beneath Roi Baudouin Ice Shelf (East Antarctica) inferred from radar, GPS, and ice core data. Journal of Geophysical Research, 2012, 117, .	3.3	18
40	Surface mass balance on Fimbul ice shelf, East Antarctica: Comparison of field measurements and largeâ€scale studies. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,625.	3.3	18
41	Low melt rates with seasonal variability at the base of Fimbul Ice Shelf, East Antarctica, revealed by in situ interferometric radar measurements. Geophysical Research Letters, 2014, 41, 8138-8146.	4.0	17
42	Spatial and temporal variations in basal melting at Nivlisen ice shelf, East Antarctica, derived from phase-sensitive radars. Cryosphere, 2019, 13, 2579-2595.	3.9	16
43	Constraining variable density of ice shelves using wide-angle radarÂmeasurements. Cryosphere, 2016, 10, 811-823.	3.9	15
44	Anisotropic radio-wave scattering from englacial water regimes, MÃ½rdalsjÃ¶kull, Iceland. Journal of Glaciology, 2007, 53, 473-478.	2.2	14
45	Using englacial radar attenuation to better diagnose the subglacial environment: A review. , 2010, , .		14
46	Distribution and character of water in a surgeâ€type glacier revealed by multifrequency and multipolarization groundâ€penetrating radar. Journal of Geophysical Research, 2008, 113, .	3.3	12
47	Glaciological settings and recent mass balance of BlÃ¥skimen Island in Dronning Maud Land, Antarctica. Cryosphere, 2017, 11, 2883-2896.	3.9	12
48	Observation of internal structures of snow covers with a ground-penetrating radar. Annals of Glaciology, 2004, 38, 21-24.	1.4	11
49	Deep Ice Stratigraphy and Basal Conditions in Central West Antarctica Revealed by Coherent Radar. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 246-250.	3.1	11
50	Basal Settings Control Fast Ice Flow in the Recovery/Slessor/Bailey Region, East Antarctica. Geophysical Research Letters, 2018, 45, 2706-2715.	4.0	11
51	Distribution of sea salt components in snow cover along the traverse route from the coast to Dome Fuji station 1000 km inland at east Dronning Maud Land, Antarctica. Tellus, Series B: Chemical and Physical Meteorology, 2002, 54, 407-411.	1.6	11
52	Radar signatures beneath a surface topographic lineation near the outlet of Kamb Ice Stream and Engelhardt Ice Ridge, West Antarctica. Annals of Glaciology, 2009, 50, 98-104.	1.4	10
53	Three-decade spatial patterns in surface mass balance of the Nivlisen Ice Shelf, central Dronning Maud Land, East Antarctica. Journal of Glaciology, 2022, 68, 174-186.	2.2	10
54	Mass balance of the SÃ¸r Rondane glacial system, East Antarctica. Annals of Glaciology, 2015, 56, 63-69.	1.4	9

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55	Topographic Steering of Enhanced Ice Flow at the Bottleneck Between East and West Antarctica. Geophysical Research Letters, 2018, 45, 4899-4907.	4.0	9
56	A Prototype Ultra-Wideband FMCW Radar for Snow and Soil-Moisture Measurements. , 2019, , .		9
57	Atmospheric and Oceanographic Signatures in the Ice Shelf Channel Morphology of Roi Baudouin Ice Shelf, East Antarctica, Inferred From Radar Data. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2020JF005587.	2.8	9
58	Surface Mass Balance Controlled by Local Surface Slope in Inland Antarctica: Implications for Iceâ€Sheet Mass Balance and Oldest Ice Delineation in Dome Fuji. Geophysical Research Letters, 2021, 48, .	4.0	9
59	A Mobile, Multichannel, UWB Radar for Potential Ice Core Drill Site Identification in East Antarctica: Development and First Results. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 4836-4847.	4.9	8
60	A novel backpackable ice-penetrating radar system. Journal of Glaciology, 2004, 50, 147-150.	2.2	7
61	Ice-rise stratigraphy reveals changes in surface mass balance over the last millennia in Dronning Maud Land. Journal of Glaciology, 2018, 64, 932-942.	2.2	7
62	Patchy Lakes and Topographic Origin for Fast Flow in the Recovery Glacier System, East Antarctica. Journal of Geophysical Research F: Earth Surface, 2019, 124, 287-304.	2.8	7
63	Application of visual stratigraphy from line-scan images to constrain chronology and melt features of a firn core from coastal Antarctica. Journal of Glaciology, 2023, 69, 179-190.	2.2	5
64	Seismic signals from large, tabular icebergs drifting along the Dronning Maud Land coast, Antarctica, and their significance for iceberg monitoring. Journal of Glaciology, 2015, 61, 481-492.	2.2	4
65	A Compact Multi-Channel Radar for >1Ma Old Ice Core Site Identification in East Antarctica. , 2019, , .		4
66	Radio-echo soundings of the Ushkovsky Ice Cap, Kamchatka, Russia. Journal of the Japanese Society of Snow and Ice, 1997, 59, 257-262.	0.1	0