

# Kenichi Matsuoka

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Application of visual stratigraphy from line-scan images to constrain chronology and melt features of a firn core from coastal Antarctica. <i>Journal of Glaciology</i> , 2023, 69, 179-190.	2.2	5
2	Three-decade spatial patterns in surface mass balance of the Nivlisen Ice Shelf, central Dronning Maud Land, East Antarctica. <i>Journal of Glaciology</i> , 2022, 68, 174-186.	2.2	10
3	Quantarctica, an integrated mapping environment for Antarctica, the Southern Ocean, and sub-Antarctic islands. <i>Environmental Modelling and Software</i> , 2021, 140, 105015.	4.5	106
4	Surface Mass Balance Controlled by Local Surface Slope in Inland Antarctica: Implications for Ice Sheet Mass Balance and Oldest Ice Delineation in Dome Fuji. <i>Geophysical Research Letters</i> , 2021, 48, .	4.0	9
5	Deep glacial troughs and stabilizing ridges unveiled beneath the margins of the Antarctic ice sheet. <i>Nature Geoscience</i> , 2020, 13, 132-137.	12.9	431
6	A Mobile, Multichannel, UWB Radar for Potential Ice Core Drill Site Identification in East Antarctica: Development and First Results. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 4836-4847.	4.9	8
7	Characteristics of ice rises and ice rumpled in Dronning Maud Land and Enderby Land, Antarctica. <i>Journal of Glaciology</i> , 2020, 66, 1064-1078.	2.2	19
8	Atmospheric and Oceanographic Signatures in the Ice Shelf Channel Morphology of Roi Baudouin Ice Shelf, East Antarctica, Inferred From Radar Data. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005587.	2.8	9
9	Patchy Lakes and Topographic Origin for Fast Flow in the Recovery Glacier System, East Antarctica. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 287-304.	2.8	7
10	Subglacial Geology and Geomorphology of the Pensacola Pole Basin, East Antarctica. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2786-2807.	2.5	22
11	A Compact Multi-Channel Radar for >1Ma Old Ice Core Site Identification in East Antarctica. , 2019, , .		4
12	Spatial and temporal variations in basal melting at Nivlisen ice shelf, East Antarctica, derived from phase-sensitive radars. <i>Cryosphere</i> , 2019, 13, 2579-2595.	3.9	16
13	A Prototype Ultra-Wideband FMCW Radar for Snow and Soil-Moisture Measurements. , 2019, , .		9
14	Basal Settings Control Fast Ice Flow in the Recovery/Slessor/Bailey Region, East Antarctica. <i>Geophysical Research Letters</i> , 2018, 45, 2706-2715.	4.0	11
15	Ice-rise stratigraphy reveals changes in surface mass balance over the last millennia in Dronning Maud Land. <i>Journal of Glaciology</i> , 2018, 64, 932-942.	2.2	7
16	Exploring the Recovery Lakes region and interior Dronning Maud Land, East Antarctica, with airborne gravity, magnetic and radar measurements. <i>Geological Society Special Publication</i> , 2018, 461, 23-34.	1.3	26
17	Anomalously high geothermal flux near the South Pole. <i>Scientific Reports</i> , 2018, 8, 16785.	3.3	45
18	Topographic Steering of Enhanced Ice Flow at the Bottleneck Between East and West Antarctica. <i>Geophysical Research Letters</i> , 2018, 45, 4899-4907.	4.0	9

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19	Subglacial topography, ice thickness, and bathymetry of Kongsfjorden, northwestern Svalbard. <i>Earth System Science Data</i> , 2018, 10, 1769-1781.	9.9	19
20	Actively evolving subglacial conduits and eskers initiate ice shelf channels at an Antarctic grounding line. <i>Nature Communications</i> , 2017, 8, 15228.	12.8	32
21	Sonic methods for measuring crystal orientation fabric in ice, and results from the West Antarctic ice sheet (WAIS) Divide. <i>Journal of Glaciology</i> , 2017, 63, 603-617.	2.2	19
22	Glaciological settings and recent mass balance of Blåskimen Island in Dronning Maud Land, Antarctica. <i>Cryosphere</i> , 2017, 11, 2883-2896.	3.9	12
23	Constraining variable density of ice shelves using wide-angle radar measurements. <i>Cryosphere</i> , 2016, 10, 811-823.	3.9	15
24	Seismic signals from large, tabular icebergs drifting along the Dronning Maud Land coast, Antarctica, and their significance for iceberg monitoring. <i>Journal of Glaciology</i> , 2015, 61, 481-492.	2.2	4
25	Antarctic ice rises and rumples: Their properties and significance for ice-sheet dynamics and evolution. <i>Earth-Science Reviews</i> , 2015, 150, 724-745.	9.1	103
26	Mass balance of the Sør Rondane glacial system, East Antarctica. <i>Annals of Glaciology</i> , 2015, 56, 63-69.	1.4	9
27	Evolution of Derwael Ice Rise in Dronning Maud Land, Antarctica, over the last millennia. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 564-579.	2.8	31
28	Transition of flow regime along a marine-terminating outlet glacier in East Antarctica. <i>Cryosphere</i> , 2014, 8, 867-875.	3.9	22
29	Complex network of channels beneath an Antarctic ice shelf. <i>Geophysical Research Letters</i> , 2014, 41, 1209-1215.	4.0	38
30	Low melt rates with seasonal variability at the base of Fimbul Ice Shelf, East Antarctica, revealed by in situ interferometric radar measurements. <i>Geophysical Research Letters</i> , 2014, 41, 8138-8146.	4.0	17
31	High variability of climate and surface mass balance induced by Antarctic ice rises. <i>Journal of Glaciology</i> , 2014, 60, 1101-1110.	2.2	43
32	Bedmap2: improved ice bed, surface and thickness datasets for Antarctica. <i>Cryosphere</i> , 2013, 7, 375-393.	3.9	1,455
33	Surface mass balance on Fimbul ice shelf, East Antarctica: Comparison of field measurements and large-scale studies. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,625.	3.3	18
34	Radar diagnosis of the subglacial conditions in Dronning Maud Land, East Antarctica. <i>Cryosphere</i> , 2012, 6, 1203-1219.	3.9	36
35	Radar characterization of the basal interface across the grounding zone of an ice-rise promontory in East Antarctica. <i>Annals of Glaciology</i> , 2012, 53, 29-34.	1.4	33
36	Melting and refreezing beneath Roi Baudouin Ice Shelf (East Antarctica) inferred from radar, GPS, and ice core data. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	18

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37	Spatial variation of englacial radar attenuation: Modeling approach and application to the Vostok flowline. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	31
38	Rapid development of anisotropic iceâ€œcrystalâ€œalignment fabrics inferred from englacial radar polarimetry, central West Antarctica. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	33
39	Predicting radar attenuation within the Antarctic ice sheet. <i>Earth and Planetary Science Letters</i> , 2012, 359-360, 173-183.	4.4	72
40	Recovery Lakes, East Antarctica: Radar assessment of sub-glacial water extent. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	41
41	Pitfalls in radar diagnosis of ice-sheet bed conditions: Lessons from englacial attenuation models. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	62
42	Glacio-meteorological conditions in the vicinity of the Belgian Princess Elisabeth Station, Antarctica. <i>Antarctic Science</i> , 2010, 22, 79.	0.9	31
43	Deep Ice Stratigraphy and Basal Conditions in Central West Antarctica Revealed by Coherent Radar. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2010, 7, 246-250.	3.1	11
44	Using englacial radar attenuation to better diagnose the subglacial environment: A review. , 2010, , .		14
45	Estimating englacial radar attenuation using depth profiles of the returned power, central West Antarctica. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	42
46	Effects of Birefringence Within Ice Sheets on Obliquely Propagating Radio Waves. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2009, 47, 1429-1443.	6.3	45
47	Radar detection of accreted ice over Lake Vostok, Antarctica. <i>Earth and Planetary Science Letters</i> , 2009, 282, 222-233.	4.4	19
48	Millennially averaged accumulation rates for the Vostok Subglacial Lake region inferred from deep internal layers. <i>Annals of Glaciology</i> , 2009, 50, 25-34.	1.4	18
49	A low-frequency ice-penetrating radar system adapted for use from an airplane: test results from Bering and Malaspina Glaciers, Alaska, USA. <i>Annals of Glaciology</i> , 2009, 50, 93-97.	1.4	41
50	Radar signatures beneath a surface topographic lineation near the outlet of Kamb Ice Stream and Engelhardt Ice Ridge, West Antarctica. <i>Annals of Glaciology</i> , 2009, 50, 98-104.	1.4	10
51	Distribution and character of water in a surgeâ€œtype glacier revealed by multifrequency and multipolarization groundâ€œpenetrating radar. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	12
52	Anisotropic radio-wave scattering from englacial water regimes, MÃ½rdalsjÃ¶kull, Iceland. <i>Journal of Glaciology</i> , 2007, 53, 473-478.	2.2	14
53	Modeling englacial radar attenuation at Siple Dome, West Antarctica, using ice chemistry and temperature data. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	114
54	Radio-wave depolarization and scattering within ice sheets: a matrix-based model to link radar and ice-core measurements and its application. <i>Journal of Glaciology</i> , 2006, 52, 407-424.	2.2	76

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55	A novel backpackable ice-penetrating radar system. <i>Journal of Glaciology</i> , 2004, 50, 147-150.	2.2	7
56	Observation of internal structures of snow covers with a ground-penetrating radar. <i>Annals of Glaciology</i> , 2004, 38, 21-24.	1.4	11
57	Ice-flow-induced scattering zone within the Antarctic ice sheet revealed by high-frequency airborne radar. <i>Journal of Glaciology</i> , 2004, 50, 382-388.	2.2	23
58	Crystal orientation fabrics within the Antarctic ice sheet revealed by a multipolarization plane and dual-frequency radar survey. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	77
59	Scattering of VHF radio waves from within an ice sheet containing the vertical-girdle-type ice fabric and anisotropic reflection boundaries. <i>Annals of Glaciology</i> , 2003, 37, 305-316.	1.4	22
60	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. <i>Annals of Glaciology</i> , 2002, 34, 157-164.	1.4	19
61	A ground-based, multi-frequency ice-penetrating radar system. <i>Annals of Glaciology</i> , 2002, 34, 171-176.	1.4	24
62	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. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2002, 54, 407-411.	1.6	11
63	Modelling dynamics of glaciers in volcanic craters. <i>Journal of Glaciology</i> , 2000, 46, 177-187.	2.2	24
64	Mass Balance Features Derived from a Firn Core at Hielo PatagÃ³nico Norte, South America. <i>Arctic, Antarctic, and Alpine Research</i> , 1999, 31, 333-340.	1.1	24
65	Mass Balance Features Derived from a Firn Core at Hielo Patagonico Norte, South America. <i>Arctic, Antarctic, and Alpine Research</i> , 1999, 31, 333.	1.1	23
66	Radio-echo soundings of the Ushkovsky Ice Cap, Kamchatka, Russia. <i>Journal of the Japanese Society of Snow and Ice</i> , 1997, 59, 257-262.	0.1	0