

# Karsten Gohl

## 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.

116  
papers

3,641  
citations

33  
h-index

56  
g-index

137  
ext. papers

4,150  
ext. citations

5  
avg, IF

5.23  
L-index

#	Paper	IF	Citations
116	Cenozoic history of Antarctic glaciation and climate from onshore and offshore studies <b>2022</b> , 41-164		1
115	Evidence for a Highly Dynamic West Antarctic Ice Sheet During the Pliocene. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL093103	4.9	0
114	High geothermal heat flow beneath Thwaites Glacier in West Antarctica inferred from aeromagnetic data. <i>Communications Earth &amp; Environment</i> , <b>2021</b> , 2,	6.1	2
113	Extent and Cessation of the Mid-Cretaceous Hikurangi Plateau Underthrusting: Impact on Global Plate Tectonics and the Submarine Chatham Rise. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2020</b> , 125, e2020JB019681	3.6	5
112	The Evolving Paleobathymetry of the Circum-Antarctic Southern Ocean Since 34 Ma: A Key to Understanding Past Cryosphere-Ocean Developments. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2020</b> , 21, e2020GC009122	3.6	20
111	Late Cretaceous to recent ocean-bottom currents in the SW Pacific Gateway, southeastern Chatham Rise, New Zealand. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2020</b> , 546, 109633	2.9	2
110	Temperate rainforests near the South Pole during peak Cretaceous warmth. <i>Nature</i> , <b>2020</b> , 580, 81-86	50.4	30
109	Revealing the former bed of Thwaites Glacier using sea-floor bathymetry: implications for warm-water routing and bed controls on ice flow and buttressing. <i>Cryosphere</i> , <b>2020</b> , 14, 2883-2908	5.5	11
108	Cretaceous intracontinental rifting at the southern Chatham Rise margin and initialisation of seafloor spreading between Zealandia and Antarctica. <i>Tectonophysics</i> , <b>2020</b> , 776, 228298	3.1	11
107	Morphometry of bedrock meltwater channels on Antarctic inner continental shelves: Implications for channel development and subglacial hydrology. <i>Geomorphology</i> , <b>2020</b> , 370, 107369	4.3	1
106	Late Cretaceous (99-69 Ma) basaltic intraplate volcanism on and around Zealandia: Tracing upper mantle geodynamics from Hikurangi Plateau collision to Gondwana breakup and beyond. <i>Earth and Planetary Science Letters</i> , <b>2020</b> , 529, 115864	5.3	17
105	Reconstructions of Antarctic topography since the Eocene-Oligocene boundary. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2019</b> , 535, 109346	2.9	48
104	Seaward growth of Antarctic continental shelves since establishment of a continent-wide ice sheet: Patterns and mechanisms. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2019</b> , 520, 44-54	2.9	10
103	Expedition 379 Preliminary Report: Amundsen Sea West Antarctic Ice Sheet History. <i>Preliminary Report</i> , <b>2019</b> ,	1.5	7
102	GlobSed: Updated Total Sediment Thickness in the World's Oceans. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2019</b> , 20, 1756-1772	3.6	90
101	Elevated geothermal surface heat flow in the Amundsen Sea Embayment, West Antarctica. <i>Earth and Planetary Science Letters</i> , <b>2019</b> , 506, 530-539	5.3	7
100	Multiphase magmatic and tectonic evolution of a large igneous province - Evidence from the crustal structure of the Manihiki Plateau, western Pacific. <i>Tectonophysics</i> , <b>2019</b> , 750, 434-457	3.1	4

99	The Strike-Slip West Wishbone Ridge and the Eastern Margin of the Hikurangi Plateau. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2018</b> , 19, 1199-1216	3.6	3
98	New Magnetic Anomaly Map of the Antarctic. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 6437-6449	4.9	48
97	Bathymetric controls on calving processes at Pine Island Glacier. <i>Cryosphere</i> , <b>2018</b> , 12, 2039-2050	5.5	14
96	Collision of Manihiki Plateau fragments to accretional margins of northern Andes and Antarctic Peninsula. <i>Tectonics</i> , <b>2017</b> , 36, 229-240	4.3	10
95	Impact of Weddell Sea shelf progradation on Antarctic bottom water formation during the Miocene. <i>Paleoceanography</i> , <b>2017</b> , 32, 304-317		20
94	Geothermal heat flux in the Amundsen Sea sector of West Antarctica: New insights from temperature measurements, depth to the bottom of the magnetic source estimation, and thermal modeling. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2017</b> , 18, 2657-2672	3.6	14
93	West Antarctic Ice Sheet retreat driven by Holocene warm water incursions. <i>Nature</i> , <b>2017</b> , 547, 43-48	50.4	73
92	The last glaciation of Bear Peninsula, central Amundsen Sea Embayment of Antarctica: Constraints on timing and duration revealed by in situ cosmogenic <sup>14</sup> C and <sup>10</sup> Be dating. <i>Quaternary Science Reviews</i> , <b>2017</b> , 178, 77-88	3.9	11
91	MeBo70 Seabed Drilling on a Polar Continental Shelf: Operational Report and Lessons From Drilling in the Amundsen Sea Embayment of West Antarctica. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2017</b> , 18, 4235-4250	3.6	6
90	Limited grounding-line advance onto the West Antarctic continental shelf in the easternmost Amundsen Sea Embayment during the last glacial period. <i>PLoS ONE</i> , <b>2017</b> , 12, e0181593	3.7	13
89	Tectonomorphic evolution of Marie Byrd Land: Implications for Cenozoic rifting activity and onset of West Antarctic glaciation. <i>Global and Planetary Change</i> , <b>2016</b> , 145, 98-115	4.2	26
88	Exhumation history along the eastern Amundsen Sea coast, West Antarctica, revealed by low-temperature thermochronology. <i>Tectonics</i> , <b>2016</b> , 35, 2239-2257	4.3	6
87	Seismic stratigraphy along the Amundsen Sea to Ross Sea continental rise: A cross-regional record of pre-glacial to glacial processes of the West Antarctic margin. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2016</b> , 443, 183-202	2.9	16
86	Bedrock channels in Pine Island Bay, West Antarctica. <i>Geological Society Memoir</i> , <b>2016</b> , 46, 217-218	0.4	4
85	A glacial landform assemblage from an inter-ice stream setting in the eastern Amundsen Sea Embayment, West Antarctica. <i>Geological Society Memoir</i> , <b>2016</b> , 46, 349-352	0.4	7
84	Submarine landform assemblage produced beneath the Dotson-Jetz palaeo-ice stream, West Antarctica. <i>Geological Society Memoir</i> , <b>2016</b> , 46, 345-348	0.4	5
83	Crag-and-tail features on the Amundsen Sea continental shelf, West Antarctica. <i>Geological Society Memoir</i> , <b>2016</b> , 46, 199-200	0.4	6
82	Submarine glacial-landform distribution across the West Antarctic margin, from grounding line to slope: the Pine Island-Thwaites ice-stream system. <i>Geological Society Memoir</i> , <b>2016</b> , 46, 493-500	0.4	7

81	Subglacial bathymetry and sediment distribution beneath Pine Island Glacier ice shelf modeled using aerogravity and in situ geophysical data: New results. <i>Earth and Planetary Science Letters</i> , <b>2016</b> , 433, 63-75	5.3	24
80	Preglacial to glacial sediment thickness grids for the Southern Pacific Margin of West Antarctica. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2016</b> , 17, 4276-4285	3.6	15
79	Palaeo-ice stream pathways and retreat style in the easternmost Amundsen Sea Embayment, West Antarctica, revealed by combined multibeam bathymetric and seismic data. <i>Geomorphology</i> , <b>2015</b> , 245, 207-222	4.3	32
78	Rift processes and crustal structure of the Amundsen Sea Embayment, West Antarctica, from 3D potential field modelling. <i>Marine Geophysical Researches</i> , <b>2015</b> , 36, 263-279	2.3	9
77	Playing jigsaw with Large Igneous Provinces: A plate tectonic reconstruction of Ontong Java Nui, West Pacific. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2015</b> , 16, 3789-3807	3.6	35
76	Seismostratigraphic Analysis and Glacial History of the Weddell Sea Region, Antarctica. <i>Springer Earth System Sciences</i> , <b>2015</b> , 207-217	0.3	1
75	Rapid thinning of Pine Island Glacier in the early Holocene. <i>Science</i> , <b>2014</b> , 343, 999-1001	33.3	49
74	A community-based geological reconstruction of Antarctic Ice Sheet deglaciation since the Last Glacial Maximum. <i>Quaternary Science Reviews</i> , <b>2014</b> , 100, 1-9	3.9	193
73	Early glaciation already during the Early Miocene in the Amundsen Sea, Southern Pacific: Indications from the distribution of sedimentary sequences. <i>Global and Planetary Change</i> , <b>2014</b> , 120, 92-104	4.2	16
72	The crustal structure and tectonic development of the continental margin of the Amundsen Sea Embayment, West Antarctica: implications from geophysical data. <i>Geophysical Journal International</i> , <b>2014</b> , 198, 327-341	2.6	14
71	Retreat of the West Antarctic Ice Sheet from the western Amundsen Sea shelf at a pre- or early LGM stage. <i>Quaternary Science Reviews</i> , <b>2014</b> , 91, 1-15	3.9	21
70	Glacial retreat in the Amundsen Sea sector, West Antarctica: First cosmogenic evidence from central Pine Island Bay and the Kohler Range. <i>Quaternary Science Reviews</i> , <b>2014</b> , 98, 166-173	3.9	12
69	The diverse crustal structure and magmatic evolution of the Manihiki Plateau, central Pacific <b>2014</b> ,		1
68	Anomalous South Pacific lithosphere dynamics derived from new total sediment thickness estimates off the West Antarctic margin. <i>Global and Planetary Change</i> , <b>2014</b> , 123, 139-149	4.2	16
67	Reconstruction of changes in the Amundsen Sea and Bellingshausen Sea sector of the West Antarctic Ice Sheet since the Last Glacial Maximum. <i>Quaternary Science Reviews</i> , <b>2014</b> , 100, 55-86	3.9	68
66	Seamounts off the West Antarctic margin: A case for non-hotspot driven intraplate volcanism. <i>Gondwana Research</i> , <b>2014</b> , 25, 1660-1679	5.1	34
65	Variability in Cenozoic sedimentation and paleo-water depths of the Weddell Sea basin related to pre-glacial and glacial conditions of Antarctica. <i>Global and Planetary Change</i> , <b>2014</b> , 118, 25-41	4.2	31
64	Deciphering tectonic phases of the Amundsen Sea Embayment shelf, West Antarctica, from a magnetic anomaly grid. <i>Tectonophysics</i> , <b>2013</b> , 585, 113-123	3.1	25

63	Deep-sea pre-glacial to glacial sedimentation in the Weddell Sea and southern Scotia Sea from a cross-basin seismic transect. <i>Marine Geology</i> , <b>2013</b> , 336, 61-83	3.3	29
62	First geomorphological record and glacial history of an inter-ice stream ridge on the West Antarctic continental shelf. <i>Quaternary Science Reviews</i> , <b>2013</b> , 61, 47-61	3.9	31
61	Seismic Expression of Glacially Deposited Sequences in the Bellingshausen and Amundsen Seas, West Antarctica. <i>Antarctic Research Series</i> , <b>2013</b> , 95-108		4
60	Seismic stratigraphic record of the Amundsen Sea Embayment shelf from pre-glacial to recent times: Evidence for a dynamic West Antarctic ice sheet. <i>Marine Geology</i> , <b>2013</b> , 344, 115-131	3.3	48
59	Paleo ice flow and subglacial meltwater dynamics in Pine Island Bay, West Antarctica. <i>Cryosphere</i> , <b>2013</b> , 7, 249-262	5.5	75
58	The Davis Strait crustal transform margin between two oceanic basins. <i>Geophysical Journal International</i> , <b>2013</b> , 193, 78-97	2.6	25
57	Grounding-line retreat of the West Antarctic Ice Sheet from inner Pine Island Bay. <i>Geology</i> , <b>2013</b> , 41, 35-38	5	59
56	Glaciomarine sedimentation dynamics of the Abbot glacial trough of the Amundsen Sea Embayment shelf, West Antarctica. <i>Geological Society Special Publication</i> , <b>2013</b> , 381, 233-244	1.7	11
55	The crustal structure of southern Baffin Bay: implications from a seismic refraction experiment. <i>Geophysical Journal International</i> , <b>2012</b> , 190, 37-58	2.6	45
54	Amundsen Sea sediment drifts: Archives of modifications in oceanographic and climatic conditions. <i>Marine Geology</i> , <b>2012</b> , 299-302, 51-62	3.3	29
53	Structure and breakup history of the rifted margin of West Antarctica in relation to Cretaceous separation from Zealandia and Bellingshausen plate motion. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2012</b> , 13, n/a-n/a	3.6	38
52	Basement control on past ice sheet dynamics in the Amundsen Sea Embayment, West Antarctica. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2012</b> , 335-336, 35-41	2.9	23
51	Antarctic topography at the Eocene-Oligocene boundary. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , <b>2012</b> , 335-336, 24-34	2.9	130
50	Did massive glacial dewatering modify sedimentary structures on the Amundsen Sea Embayment shelf, West Antarctica?. <i>Global and Planetary Change</i> , <b>2012</b> , 92-93, 8-16	4.2	7
49	Tectonic evolution of southern Baffin Bay and Davis Strait: Results from a seismic refraction transect between Canada and Greenland. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		29
48	Granitoids and dykes of the Pine Island Bay region, West Antarctica. <i>Antarctic Science</i> , <b>2012</b> , 24, 473-484	1.7	16
47	GROWTH AND DISPERSAL OF A SOUTHEAST AFRICAN LARGE IGNEOUS PROVINCE. <i>South African Journal of Geology</i> , <b>2011</b> , 114, 379-386	1.6	39
46	Flow and retreat of the Late Quaternary Pine Island-Thwaites palaeo-ice stream, West Antarctica. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		82

45	Gas escape features off New Zealand: Evidence of massive release of methane from hydrates. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	51
44	Subglacial bedforms reveal complex basal regime in a zone of paleo-ice stream convergence, Amundsen Sea embayment, West Antarctica. <i>Geology</i> , <b>2009</b> , 37, 411-414	5	96
43	Late Cenozoic ice sheet cyclicity in the western Amundsen Sea Embayment [Evidence from seismic records. <i>Global and Planetary Change</i> , <b>2009</b> , 69, 162-169	4.2	15
42	Animated tectonic reconstruction of the Southern Pacific and alkaline volcanism at its convergent margins since Eocene times. <i>Tectonophysics</i> , <b>2009</b> , 464, 21-29	3.1	42
41	Extensional and magmatic nature of the Campbell Plateau and Great South Basin from deep crustal studies. <i>Tectonophysics</i> , <b>2009</b> , 472, 213-225	3.1	27
40	Bedform signature of a West Antarctic palaeo-ice stream reveals a multi-temporal record of flow and substrate control. <i>Quaternary Science Reviews</i> , <b>2009</b> , 28, 2774-2793	3.9	123
39	Southern African continental margin: Dynamic processes of a transform margin. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2009</b> , 10, n/a-n/a	3.6	39
38	West Antarctic Rift System in the Antarctic Peninsula. <i>Geophysical Research Letters</i> , <b>2009</b> , 36,	4.9	32
37	The Agulhas Plateau: structure and evolution of a Large Igneous Province. <i>Geophysical Journal International</i> , <b>2008</b> , 174, 336-350	2.6	58
36	Quantitative tectonic reconstructions of Zealandia based on crustal thickness estimates. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2008</b> , 9, n/a-n/a	3.6	33
35	Crustal structure of the southern margin of the African continent: Results from geophysical experiments. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113,		22
34	First exposure ages from the Amundsen Sea Embayment, West Antarctica: The Late Quaternary context for recent thinning of Pine Island, Smith, and Pope Glaciers. <i>Geology</i> , <b>2008</b> , 36, 223	5	41
33	Deep crustal structure of the sheared South African continental margin: first results of the Agulhas-Karoo Geoscience Transect. <i>South African Journal of Geology</i> , <b>2007</b> , 110, 393-406	1.6	19
32	Is the Bounty Trough off eastern New Zealand an aborted rift?. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112,		30
31	West Antarctic ice sheet change since the Last Glacial Period. <i>Eos</i> , <b>2007</b> , 88, 189-190	1.5	17
30	Bathymetry of the Amundsen Sea continental shelf: Implications for geology, oceanography, and glaciology. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2007</b> , 8, n/a-n/a	3.6	113
29	Eocene to Miocene geometry of the West Antarctic Rift System. <i>Australian Journal of Earth Sciences</i> , <b>2007</b> , 54, 1033-1045	1.4	39
28	Neogene sediment structures in Bounty Trough, eastern New Zealand: Influence of magmatic and oceanic current activity. <i>Bulletin of the Geological Society of America</i> , <b>2006</b> , preprint, 1	3.9	3

27	Gridded isopach maps from the South Pacific and their use in interpreting the sedimentation history of the West Antarctic continental margin. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2006</b> , 7, n/a-n/a	3.6	12
26	The Levantine Basin crustal structure and origin. <i>Tectonophysics</i> , <b>2006</b> , 418, 167-188	3.1	87
25	Variability in Cenozoic sedimentation along the continental rise of the Bellingshausen Sea, West Antarctica. <i>Marine Geology</i> , <b>2006</b> , 227, 279-298	3.3	33
24	Bottom-current control on sedimentation in the western Bellingshausen Sea, West Antarctica. <i>Geo-Marine Letters</i> , <b>2006</b> , 26, 90-101	1.9	10
23	The Agulhas Ridge, South Atlantic: The Peculiar Structure of a Fracture Zone. <i>Marine Geophysical Researches</i> , <b>2004</b> , 25, 305-319	2.3	12
22	High-resolution animated tectonic reconstruction of the South Pacific and West Antarctic Margin. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2004</b> , 5,	3.6	121
21	Life of the Bellingshausen plate. <i>Geophysical Research Letters</i> , <b>2004</b> , 31, n/a-n/a	4.9	22
20	Tectonic evolution of the Pacific margin of Antarctica 2. Structure of Late Cretaceous-Early Tertiary plate boundaries in the Bellingshausen Sea from seismic reflection and gravity data. <i>Journal of Geophysical Research</i> , <b>2002</b> , 107, EPM 6-1-EPM 6-20		20
19	Tectonic evolution of the Pacific margin of Antarctica 1. Late Cretaceous tectonic reconstructions. <i>Journal of Geophysical Research</i> , <b>2002</b> , 107, EPM 5-1-EPM 5-19		106
18	3-D tomographic seismic inversion of a paleochannel system in central New South Wales, Australia. <i>Geophysics</i> , <b>2002</b> , 67, 1364-1371	3.1	8
17	The crustal role of the Agulhas Plateau, southwest Indian Ocean: evidence from seismic profiling. <i>Geophysical Journal International</i> , <b>2001</b> , 144, 632-646	2.6	45
16	High-resolution seismic imagery of palaeochannels near West Wyalong, New South Wales. <i>Exploration Geophysics</i> , <b>2000</b> , 31, 383-388	1	3
15	Geometry and development of glacial continental margin depositional systems in the Bellingshausen Sea. <i>Marine Geology</i> , <b>2000</b> , 162, 277-302	3.3	58
14	Seismic refraction inversion of a palaeochannel system in the Lachlan Fold Belt, Central New South Wales. <i>Exploration Geophysics</i> , <b>2000</b> , 31, 389-393	1	3
13	Deep structure of the Namibia continental margin as derived from integrated geophysical studies. <i>Journal of Geophysical Research</i> , <b>2000</b> , 105, 25829-25853		168
12	Agulhas Plateau, SW Indian Ocean: New evidence for excessive volcanism. <i>Geophysical Research Letters</i> , <b>1999</b> , 26, 1941-1944	4.9	20
11	A geophysical survey of the De Gerlache Seamounts: preliminary results. <i>Geo-Marine Letters</i> , <b>1998</b> , 18, 19-25	1.9	8
10	Seismic and gravity data reveal Tertiary interplate subduction in the Bellingshausen Sea, southeast Pacific. <i>Geology</i> , <b>1997</b> , 25, 371	5	29

9	Geological record and reconstruction of the late Pliocene impact of the Eltanin asteroid in the Southern Ocean. <i>Nature</i> , <b>1997</b> , 390, 357-63	50.4	146
8	Wide-angle reflection studies of the crust and moho beneath the Archean Gneiss Terrane of southern Minnesota. <i>Geophysical Research Letters</i> , <b>1993</b> , 20, 619-622	4.9	3
7	Structure of Archean crust and passive margin of southwest Greenland from seismic wide-angle data. <i>Journal of Geophysical Research</i> , <b>1993</b> , 98, 6623-6638		22
6	Differences in ice retreat across Pine Island Bay, West Antarctica, since the Last Glacial Maximum: Indications from multichannel seismic reflection data. <i>US Geological Survey Open-File Report</i> ,		4
5	More than ten years of successful operation of the MARUM-MeBo sea bed drilling technology: Highlights of recent scientific drilling campaigns		2
4	Geohazard detection using 3D seismic data to enhance offshore scientific drilling site selection. <i>Scientific Drilling</i> , <b>28</b> , 1-27		7
3	Paleo ice flow and subglacial meltwater dynamics in Pine Island Bay, West Antarctica		2
2	Developing community-based scientific priorities and new drilling proposals in the southern Indian and southwestern Pacific oceans. <i>Scientific Drilling</i> , <b>24</b> , 61-70		2
1	Volume 379: Amundsen Sea West Antarctic Ice Sheet History. <i>Proceedings of the International Ocean Discovery Program</i> ,		3