

# Karsten Gohl

## List of Publications by Year in descending order

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118  
papers

4,644  
citations

101496

36  
h-index

118793

62  
g-index

137  
all docs

137  
docs citations

137  
times ranked

3450  
citing authors

#	ARTICLE	IF	CITATIONS
1	A community-based geological reconstruction of Antarctic Ice Sheet deglaciation since the Last Glacial Maximum. <i>Quaternary Science Reviews</i> , 2014, 100, 1-9.	1.4	228
2	GlobSed: Updated Total Sediment Thickness in the World's Oceans. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 1756-1772.	1.0	227
3	Deep structure of the Namibia continental margin as derived from integrated geophysical studies. <i>Journal of Geophysical Research</i> , 2000, 105, 25829-25853.	3.3	191
4	Geological record and reconstruction of the late Pliocene impact of the Eltanin asteroid in the Southern Ocean. <i>Nature</i> , 1997, 390, 357-363.	13.7	164
5	Antarctic topography at the Eocene–Oligocene boundary. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2012, 335-336, 24-34.	1.0	151
6	High-resolution animated tectonic reconstruction of the South Pacific and West Antarctic Margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, .	1.0	133
7	Bedform signature of a West Antarctic palaeo-ice stream reveals a multi-temporal record of flow and substrate control. <i>Quaternary Science Reviews</i> , 2009, 28, 2774-2793.	1.4	133
8	Bathymetry of the Amundsen Sea continental shelf: Implications for geology, oceanography, and glaciology. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, .	1.0	127
9	Tectonic evolution of the Pacific margin of Antarctica 1. Late Cretaceous tectonic reconstructions. <i>Journal of Geophysical Research</i> , 2002, 107, EPM 5-1-EPM 5-19.	3.3	126
10	West Antarctic Ice Sheet retreat driven by Holocene warm water incursions. <i>Nature</i> , 2017, 547, 43-48.	13.7	109
11	The Levantine Basin's crustal structure and origin. <i>Tectonophysics</i> , 2006, 418, 167-188.	0.9	102
12	Subglacial bedforms reveal complex basal regime in a zone of paleo-ice stream convergence, Amundsen Sea embayment, West Antarctica. <i>Geology</i> , 2009, 37, 411-414.	2.0	102
13	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> , 2014, 100, 55-86.	1.4	94
14	Flow and retreat of the Late Quaternary Pine Island–Thwaites palaeo-ice stream, West Antarctica. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	93
15	Paleo ice flow and subglacial meltwater dynamics in Pine Island Bay, West Antarctica. <i>Cryosphere</i> , 2013, 7, 249-262.	1.5	91
16	New Magnetic Anomaly Map of the Antarctic. <i>Geophysical Research Letters</i> , 2018, 45, 6437-6449.	1.5	78
17	Reconstructions of Antarctic topography since the Eocene–Oligocene boundary. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2019, 535, 109346.	1.0	78
18	Grounding-line retreat of the West Antarctic Ice Sheet from inner Pine Island Bay. <i>Geology</i> , 2013, 41, 35-38.	2.0	77

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19	The Agulhas Plateau: structure and evolution of a Large Igneous Province. <i>Geophysical Journal International</i> , 2008, 174, 336-350.	1.0	71
20	Temperate rainforests near the South Pole during peak Cretaceous warmth. <i>Nature</i> , 2020, 580, 81-86.	13.7	69
21	Geometry and development of glacial continental margin depositional systems in the Bellingshausen Sea. <i>Marine Geology</i> , 2000, 162, 277-302.	0.9	67
22	Rapid Thinning of Pine Island Glacier in the Early Holocene. <i>Science</i> , 2014, 343, 999-1001.	6.0	67
23	Gas escape features off New Zealand: Evidence of massive release of methane from hydrates. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	62
24	The crustal role of the Agulhas Plateau, southwest Indian Ocean: evidence from seismic profiling. <i>Geophysical Journal International</i> , 2001, 144, 632-646.	1.0	56
25	The crustal structure of southern Baffin Bay: implications from a seismic refraction experiment. <i>Geophysical Journal International</i> , 2012, 190, 37-58.	1.0	54
26	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> , 2013, 344, 115-131.	0.9	54
27	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> , 2008, 36, 223.	2.0	52
28	GROWTH AND DISPERSAL OF A SOUTHEAST AFRICAN LARGE IGNEOUS PROVINCE. <i>South African Journal of Geology</i> , 2011, 114, 379-386.	0.6	48
29	Animated tectonic reconstruction of the Southern Pacific and alkaline volcanism at its convergent margins since Eocene times. <i>Tectonophysics</i> , 2009, 464, 21-29.	0.9	46
30	Southern African continental margin: Dynamic processes of a transform margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	46
31	Playing jigsaw with Large Igneous Provinces—A plate tectonic reconstruction of Ontong Java Nui, West Pacific. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 3789-3807.	1.0	46
32	Eocene to Miocene geometry of the West Antarctic Rift System. <i>Australian Journal of Earth Sciences</i> , 2007, 54, 1033-1045.	0.4	44
33	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> , 2012, 13, .	1.0	43
34	First geomorphological record and glacial history of an inter-ice stream ridge on the West Antarctic continental shelf. <i>Quaternary Science Reviews</i> , 2013, 61, 47-61.	1.4	43
35	Quantitative tectonic reconstructions of Zealandia based on crustal thickness estimates. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	42
36	Variability in Cenozoic sedimentation along the continental rise of the Bellingshausen Sea, West Antarctica. <i>Marine Geology</i> , 2006, 227, 279-298.	0.9	39

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37	Seamounts off the West Antarctic margin: A case for non-hotspot driven intraplate volcanism. <i>Gondwana Research</i> , 2014, 25, 1660-1679.	3.0	38
38	West Antarctic Rift System in the Antarctic Peninsula. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	37
39	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> , 2014, 118, 25-41.	1.6	37
40	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> , 2015, 245, 207-222.	1.1	37
41	Amundsen Sea sediment drifts: Archives of modifications in oceanographic and climatic conditions. <i>Marine Geology</i> , 2012, 299-302, 51-62.	0.9	36
42	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> , 2012, 117, .	3.3	35
43	Is the Bounty Trough off eastern New Zealand an aborted rift?. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	34
44	Extensional and magmatic nature of the Campbell Plateau and Great South Basin from deep crustal studies. <i>Tectonophysics</i> , 2009, 472, 213-225.	0.9	34
45	The Evolving Paleobathymetry of the Circumâ€Antarctic Southern Ocean Since 34 Ma: A Key to Understanding Past Cryosphereâ€Ocean Developments. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009122.	1.0	34
46	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> , 2013, 336, 61-83.	0.9	33
47	Seismic and gravity data reveal Tertiary interplate subduction in the Bellingshausen Sea, southeast Pacific. <i>Geology</i> , 1997, 25, 371.	2.0	32
48	Crustal structure of the southern margin of the African continent: Results from geophysical experiments. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	32
49	Deciphering tectonic phases of the Amundsen Sea Embayment shelf, West Antarctica, from a magnetic anomaly grid. <i>Tectonophysics</i> , 2013, 585, 113-123.	0.9	31
50	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> , 2016, 433, 63-75.	1.8	31
51	The Davis Strait crustâ€a transform margin between two oceanic basins. <i>Geophysical Journal International</i> , 2013, 193, 78-97.	1.0	30
52	Tectonomorphic evolution of Marie Byrd Land â€ Implications for Cenozoic rifting activity and onset of West Antarctic glaciation. <i>Global and Planetary Change</i> , 2016, 145, 98-115.	1.6	30
53	Agulhas Plateau, SW Indian Ocean: New evidence for excessive volcanism. <i>Geophysical Research Letters</i> , 1999, 26, 1941-1944.	1.5	29
54	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> , 2007, 110, 393-406.	0.6	28

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55	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> , 2020, 14, 2883-2908.	1.5	27
56	Life of the Bellingshausen plate. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	26
57	Impact of Weddell Sea shelf progradation on Antarctic bottom water formation during the Miocene. <i>Paleoceanography</i> , 2017, 32, 304-317.	3.0	26
58	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> , 2020, 529, 115864.	1.8	26
59	Structure of Archean crust and passive margin of southwest Greenland from seismic wide-angle data. <i>Journal of Geophysical Research</i> , 1993, 98, 6623-6638.	3.3	25
60	Basement control on past ice sheet dynamics in the Amundsen Sea Embayment, West Antarctica. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2012, 335-336, 35-41.	1.0	25
61	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> , 2002, 107, EPM 6-1-EPM 6-20.	3.3	24
62	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> , 2014, 91, 1-15.	1.4	24
63	Preglacial to glacial sediment thickness grids for the Southern Pacific Margin of West Antarctica. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 4276-4285.	1.0	23
64	West Antarctic ice sheet change since the Last Glacial Period. <i>Eos</i> , 2007, 88, 189-190.	0.1	20
65	Granitoids and dykes of the Pine Island Bay region, West Antarctica. <i>Antarctic Science</i> , 2012, 24, 473-484.	0.5	20
66	Anomalous South Pacific lithosphere dynamics derived from new total sediment thickness estimates off the West Antarctic margin. <i>Global and Planetary Change</i> , 2014, 123, 139-149.	1.6	20
67	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> , 2016, 443, 183-202.	1.0	20
68	Bathymetric controls on calving processes at Pine Island Glacier. <i>Cryosphere</i> , 2018, 12, 2039-2050.	1.5	20
69	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> , 2014, 120, 92-104.	1.6	19
70	Cretaceous intracontinental rifting at the southern Chatham Rise margin and initialisation of seafloor spreading between Zealandia and Antarctica. <i>Tectonophysics</i> , 2020, 776, 228298.	0.9	19
71	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> , 2017, 12, e0181593.	1.1	18
72	Late Cenozoic ice sheet cyclicity in the western Amundsen Sea Embayment – Evidence from seismic records. <i>Global and Planetary Change</i> , 2009, 69, 162-169.	1.6	17

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73	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> , 2017, 18, 2657-2672.	1.0	17
74	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> , 2014, 98, 166-173.	1.4	16
75	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> , 2017, 178, 77-88.	1.4	16
76	The Agulhas Ridge, South Atlantic: The Peculiar Structure of a Fracture Zone. <i>Marine Geophysical Researches</i> , 2004, 25, 305-319.	0.5	15
77	Seaward growth of Antarctic continental shelves since establishment of a continent-wide ice sheet: Patterns and mechanisms. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2019, 520, 44-54.	1.0	15
78	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> , 2014, 198, 327-341.	1.0	14
79	Reflection/Refraction Seismology. , 2014, , 1-15.		14
80	3D tomographic seismic inversion of a paleochannel system in central New South Wales, Australia. <i>Geophysics</i> , 2002, 67, 1364-1371.	1.4	14
81	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> , 2006, 7, n/a-n/a.	1.0	13
82	High geothermal heat flow beneath Thwaites Glacier in West Antarctica inferred from aeromagnetic data. <i>Communications Earth &amp; Environment</i> , 2021, 2, .	2.6	13
83	Glaciomarine sedimentation dynamics of the Abbot glacial trough of the Amundsen Sea Embayment shelf, West Antarctica. <i>Geological Society Special Publication</i> , 2013, 381, 233-244.	0.8	12
84	Collision of Manihiki Plateau fragments to accretional margins of northern Andes and Antarctic Peninsula. <i>Tectonics</i> , 2017, 36, 229-240.	1.3	12
85	Bottom-current control on sedimentation in the western Bellingshausen Sea, West Antarctica. <i>Geo-Marine Letters</i> , 2006, 26, 90-101.	0.5	11
86	Rift processes and crustal structure of the Amundsen Sea Embayment, West Antarctica, from 3D potential field modelling. <i>Marine Geophysical Researches</i> , 2015, 36, 263-279.	0.5	10
87	Morphometry of bedrock meltwater channels on Antarctic inner continental shelves: Implications for channel development and subglacial hydrology. <i>Geomorphology</i> , 2020, 370, 107369.	1.1	10
88	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> , 2020, 125, e2020JB019681.	1.4	10
89	Geohazard detection using 3D seismic data to enhance offshore scientific drilling site selection. <i>Scientific Drilling</i> , 0, 28, 1-27.	1.0	10
90	A geophysical survey of the De Gerlache Seamounts: preliminary results. <i>Geo-Marine Letters</i> , 1998, 18, 19-25.	0.5	9

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91	Did massive glacial dewatering modify sedimentary structures on the Amundsen Sea Embayment shelf, West Antarctica?. <i>Global and Planetary Change</i> , 2012, 92-93, 8-16.	1.6	9
92	Submarine glacial-landform distribution across the West Antarctic margin, from grounding line to slope: the Pine Islandâ€“Thwaites ice-stream system. <i>Geological Society Memoir</i> , 2016, 46, 493-500.	0.9	9
93	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> , 2017, 18, 4235-4250.	1.0	9
94	Elevated geothermal surface heat flow in the Amundsen Sea Embayment, West Antarctica. <i>Earth and Planetary Science Letters</i> , 2019, 506, 530-539.	1.8	9
95	Evidence for a Highly Dynamic West Antarctic Ice Sheet During the Pliocene. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093103.	1.5	9
96	Exhumation history along the eastern Amundsen Sea coast, West Antarctica, revealed by low-temperature thermochronology. <i>Tectonics</i> , 2016, 35, 2239-2257.	1.3	8
97	Multiphase magmatic and tectonic evolution of a large igneous province - Evidence from the crustal structure of the Manihiki Plateau, western Pacific. <i>Tectonophysics</i> , 2019, 750, 434-457.	0.9	8
98	Seismic Expression of Glacially Deposited Sequences in the Bellingshausen and Amundsen Seas, West Antarctica. <i>Antarctic Research Series</i> , 2013, , 95-108.	0.2	7
99	A glacial landform assemblage from an inter-ice stream setting in the eastern Amundsen Sea Embayment, West Antarctica. <i>Geological Society Memoir</i> , 2016, 46, 349-352.	0.9	7
100	Crag-and-tail features on the Amundsen Sea continental shelf, West Antarctica. <i>Geological Society Memoir</i> , 2016, 46, 199-200.	0.9	6
101	Submarine landform assemblage produced beneath the Dotsonâ€“Getz palaeo-ice stream, West Antarctica. <i>Geological Society Memoir</i> , 2016, 46, 345-348.	0.9	5
102	Expedition 379 methods. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	5
103	High-resolution seismic imagery of palaeochannels near West Wyalong, New South Wales. <i>Exploration Geophysics</i> , 2000, 31, 383-388.	0.5	4
104	Seismic refraction inversion of a palaeochannel system in the Lachlan Fold Belt, Central New South Wales. <i>Exploration Geophysics</i> , 2000, 31, 389-393.	0.5	4
105	Bedrock channels in Pine Island Bay, West Antarctica. <i>Geological Society Memoir</i> , 2016, 46, 217-218.	0.9	4
106	The Strike-slip West Wishbone Ridge and the Eastern Margin of the Hikurangi Plateau. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 1199-1216.	1.0	4
107	Late Cretaceous to recent ocean-bottom currents in the SW Pacific Gateway, southeastern Chatham Rise, New Zealand. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2020, 546, 109633.	1.0	4
108	Expedition 379 summary. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	4

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109	Wide-angle reflection studies of the crust and moho beneath the Archean Gneiss Terrane of southern Minnesota. <i>Geophysical Research Letters</i> , 1993, 20, 619-622.	1.5	3
110	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> , 2006, preprint, 1.	1.6	3
111	Site U1532. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	3
112	Reflection/Refraction Seismology. <i>Encyclopedia of Earth Sciences Series</i> , 2016, , 721-731.	0.1	3
113	Cenozoic history of Antarctic glaciation and climate from onshore and offshore studies. , 2022, , 41-164.		3
114	Deep water inflow slowed offshore expansion of the West Antarctic Ice Sheet at the Eocene-Oligocene transition. <i>Communications Earth &amp; Environment</i> , 2022, 3, .	2.6	3
115	Site U1533. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	2
116	Developing community-based scientific priorities and new drilling proposals in the southern Indian and southwestern Pacific oceans. <i>Scientific Drilling</i> , 0, 24, 61-70.	1.0	2
117	Seismostratigraphic Analysis and Glacial History of the Weddell Sea Region, Antarctica. <i>Springer Earth System Sciences</i> , 2015, , 207-217.	0.1	1
118	International viewpoint and news. <i>Environmental Geology</i> , 2009, 56, 1249-1250.	1.2	0