

Hartmut H Hellmer

List of Publications by Year in descending order

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74
papers

4,211
citations

126907

33
h-index

123424

61
g-index

85
all docs

85
docs citations

85
times ranked

2697
citing authors

#	ARTICLE	IF	CITATIONS
1	Twenty-first-century warming of a large Antarctic ice-shelf cavity by a redirected coastal current. <i>Nature</i> , 2012, 485, 225-228.	27.8	332
2	Antarctic Ice Sheet melting in the southeast Pacific. <i>Geophysical Research Letters</i> , 1996, 23, 957-960.	4.0	300
3	A two-dimensional model for the thermohaline circulation under an ice shelf. <i>Antarctic Science</i> , 1989, 1, 325-336.	0.9	215
4	Impact of Antarctic ice shelf basal melting on sea ice and deep ocean properties. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	158
5	A numerical model of the Weddell Sea: Large-scale circulation and water mass distribution. <i>Journal of Geophysical Research</i> , 1999, 104, 23375-23391.	3.3	126
6	Century-scale simulations of the response of the West Antarctic Ice Sheet to a warming climate. <i>Cryosphere</i> , 2015, 9, 1579-1600.	3.9	125
7	The occurrence of ice platelets at 250 m depth near the Filchner Ice Shelf and its significance for sea ice biology. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1986, 33, 141-148.	1.5	118
8	The Amundsen Sea and the Antarctic Ice Sheet. <i>Oceanography</i> , 2012, 25, 154-163.	1.0	117
9	Deep and Bottom Water of the Weddell Sea's Western Rim. <i>Science</i> , 1993, 262, 95-97.	12.6	115
10	Southern Ocean warming and increased ice shelf basal melting in the twenty-first and twenty-second centuries based on coupled ice-ocean finite-element modelling. <i>Ocean Dynamics</i> , 2013, 63, 1011-1026.	2.2	109
11	Ice-shelf basal melting in a global finite-element sea-ice/ice-shelf/ocean model. <i>Annals of Glaciology</i> , 2012, 53, 303-314.	1.4	108
12	The Weddell Gyre, Southern Ocean: Present Knowledge and Future Challenges. <i>Reviews of Geophysics</i> , 2019, 57, 623-708.	23.0	105
13	Projecting Antarctic ice discharge using response functions from SeaRISE ice-sheet models. <i>Earth System Dynamics</i> , 2014, 5, 271-293.	7.1	103
14	Glaciological and oceanographic evidence of high melt rates beneath Pine Island Glacier, West Antarctica. <i>Journal of Glaciology</i> , 1997, 43, 114-121.	2.2	83
15	Simulations of ice-ocean dynamics in the Weddell Sea 1. Model configuration and validation. <i>Journal of Geophysical Research</i> , 2002, 107, 10-1.	3.3	82
16	Modeling the spreading of glacial meltwater from the Amundsen and Bellingshausen Seas. <i>Geophysical Research Letters</i> , 2014, 41, 7942-7949.	4.0	81
17	Evidence of deep- and bottom-water formation in the western Weddell Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2008, 55, 1098-1116.	1.4	77
18	Calibrated prediction of Pine Island Glacier retreat during the 21st and 22nd centuries with a coupled flowline model. <i>Earth and Planetary Science Letters</i> , 2012, 333-334, 191-199.	4.4	77

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19	The Fate of the Southern Weddell Sea Continental Shelf in a Warming Climate. <i>Journal of Climate</i> , 2017, 30, 4337-4350.	3.2	77
20	Weddell Sea iceberg drift: Five years of observations. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	72
21	Modeling giant-iceberg drift under the influence of sea ice in the Weddell Sea, Antarctica. <i>Journal of Glaciology</i> , 2001, 47, 452-460.	2.2	69
22	Seasonal variation in circulation and water mass distribution on the Ross Sea continental shelf. <i>Antarctic Science</i> , 2003, 15, 3-11.	0.9	66
23	On the difficulty of modeling Circumpolar Deep Water intrusions onto the Amundsen Sea continental shelf. <i>Ocean Modelling</i> , 2014, 84, 26-34.	2.4	65
24	Oceanic Erosion of a Floating Antarctic Glacier in the Amundsen Sea. <i>Antarctic Research Series</i> , 0, , 83-99.	0.2	63
25	On the freshening of the northwestern Weddell Sea continental shelf. <i>Ocean Science</i> , 2011, 7, 305-316.	3.4	62
26	Future Projections of Antarctic Ice Shelf Melting Based on CMIP5 Scenarios. <i>Journal of Climate</i> , 2018, 31, 5243-5261.	3.2	62
27	From circumpolar deep water to the glacial meltwater plume on the eastern Amundsen Shelf. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2013, 77, 50-62.	1.4	61
28	A simulation of small to giant <sc>A</sc>ntarctic iceberg evolution: Differential impact on climatology estimates. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 3170-3190.	2.6	61
29	The Role of Meltwater Advection in the Formulation of Conservative Boundary Conditions at an Ice-Ocean Interface. <i>Journal of Physical Oceanography</i> , 2001, 31, 285-296.	1.7	58
30	Simulations of ice-ocean dynamics in the Weddell Sea 2. Interannual variability 1985-1993. <i>Journal of Geophysical Research</i> , 2002, 107, 11-1.	3.3	53
31	A box model of circulation and melting in ice shelf caverns. <i>Ocean Dynamics</i> , 2010, 60, 141-153.	2.2	45
32	On the transport, variability and origin of dense water masses crossing the South Scotia Ridge. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2002, 49, 4807-4825.	1.4	44
33	Amundsen Sea ice production and transport. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	44
34	Ocean interactions with the base of Amery Ice Shelf, Antarctica. <i>Journal of Geophysical Research</i> , 1992, 97, 20305-20317.	3.3	39
35	The ISPOL drift experiment. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2008, 55, 913-917.	1.4	38
36	On the near-bottom variability in the northwestern Weddell Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2002, 49, 4767-4790.	1.4	36

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37	Enhanced cross-shelf exchange by tides in the western Ross Sea. <i>Geophysical Research Letters</i> , 2013, 40, 5735-5739.	4.0	33
38	Delayed Antarctic sea-ice decline in high-resolution climate change simulations. <i>Nature Communications</i> , 2022, 13, 637.	12.8	31
39	Sea ice feedbacks observed in western Weddell Sea. <i>Eos</i> , 2006, 87, 173.	0.1	30
40	Intercomparison of Antarctic ice-shelf, ocean, and sea-ice interactions simulated by MetROMS-iceshelf and FESOM 1.4. <i>Geoscientific Model Development</i> , 2018, 11, 1257-1292.	3.6	30
41	Tidal Mixing in the Southern Weddell Sea: Results from a Three-Dimensional Model. <i>Journal of Physical Oceanography</i> , 2002, 32, 2151-2170.	1.7	29
42	Seasonal circulation under the eastern Ross Ice Shelf, Antarctica. <i>Journal of Geophysical Research</i> , 1995, 100, 10873.	3.3	28
43	Three decades of deep water mass investigation in the Weddell Sea (1984–2014): Temporal variability and changes. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2018, 149, 70-83.	1.4	27
44	Observed interannual changes beneath Filchner-Ronne Ice Shelf linked to large-scale atmospheric circulation. <i>Nature Communications</i> , 2021, 12, 2961.	12.8	26
45	The role of sea ice in the fresh-water budget of the Weddell Sea, Antarctica. <i>Annals of Glaciology</i> , 2001, 33, 419-424.	1.4	25
46	Precursors of Antarctic Bottom Water formed on the continental shelf off Larsen Ice Shelf. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2015, 99, 1-9.	1.4	25
47	M2 tidal dynamics in the Ross Sea. <i>Antarctic Science</i> , 2003, 15, 41-46.	0.9	23
48	Early summer thermohaline characteristics and mixing in the western Weddell Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2008, 55, 1117-1131.	1.4	23
49	FRIS Revisited in 2018: On the Circulation and Water Masses at the Filchner and Ronne Ice Shelves in the Southern Weddell Sea. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017269.	2.6	23
50	Necessary Conditions for Warm Inflow Toward the Filchner Ice Shelf, Weddell Sea. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089237.	4.0	23
51	Impact of West Antarctic ice shelf melting on Southern Ocean hydrography. <i>Cryosphere</i> , 2020, 14, 2205-2216.	3.9	22
52	Glaciological and oceanographic evidence of high melt rates beneath Pine Island Glacier, West Antarctica. <i>Journal of Glaciology</i> , 1997, 43, 114-121.	2.2	21
53	Future sea-level rise due to projected ocean warming beneath the Filchner Ronne Ice Shelf: A coupled model study. <i>Earth and Planetary Science Letters</i> , 2015, 431, 217-224.	4.4	20
54	Exceptionally Warm and Prolonged Flow of Warm Deep Water Toward the Filchner–Ronne Ice Shelf in 2017. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088119.	4.0	20

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55	Automated iceberg tracking with a machine learning approach applied to SAR imagery: A Weddell sea case study. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2021, 172, 189-206.	11.1	20
56	The Southern Ocean: A ventilation contributor with multiple sources. <i>Geophysical Research Letters</i> , 2001, 28, 2927-2930.	4.0	19
57	Weddell Sea anomalies: Excitation, propagation, and possible consequences. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	19
58	Marine Ice Beneath Filchner Ice Shelf: Evidence from a Multi-Disciplinary Approach. <i>Antarctic Research Series</i> , 0, , 319-339.	0.2	19
59	Ocean/ice shelf interaction in the southern Weddell Sea: results of a regional numerical helium/neon simulation. <i>Ocean Dynamics</i> , 2007, 57, 1-11.	2.2	17
60	Three Years of Near-Coastal Antarctic Iceberg Distribution From a Machine Learning Approach Applied to SAR Imagery. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 6658-6672.	2.6	17
61	On the origin of the deep CFC maximum in the Eastern Weddell Sea-Numerical model results. <i>Geophysical Research Letters</i> , 2001, 28, 2859-2862.	4.0	15
62	On the influence of adequate Weddell Sea characteristics in a large-scale global ocean circulation model. <i>Ocean Dynamics</i> , 2005, 55, 88-99.	2.2	15
63	Basal Melt and Freezing Rates From First Noble Gas Samples Beneath an Ice Shelf. <i>Geophysical Research Letters</i> , 2018, 45, 8455-8461.	4.0	15
64	On the ventilation of Bransfield Strait deep basins. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2018, 149, 25-30.	1.4	14
65	Overflow dynamics and bottom water formation in the western Ross Sea: Influence of tides. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	13
66	From pole to pole: 33 years of physical oceanography onboard R/V <i>Polarstern</i> . <i>Earth System Science Data</i> , 2017, 9, 211-220.	9.9	13
67	Meteorology and oceanography of the Atlantic sector of the Southern Ocean—a review of German achievements from the last decade. <i>Ocean Dynamics</i> , 2016, 66, 1379-1413.	2.2	12
68	Formation and spreading of Antarctic deep and bottom waters inferred from a chlorofluorocarbon (CFC) simulation. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	9
69	Temporal variations and trends of CFC11 and CFC12 surface-water saturations in Antarctic marginal seas: Results of a regional ocean circulation model. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2010, 57, 175-198.	1.4	7
70	A Multidisciplinary Perspective on Climate Model Evaluation For Antarctica. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, ES23-ES26.	3.3	7
71	The Flow of Dense Water Plumes in the Western Weddell Sea Simulated with the Finite Element Ocean Model (FEOM). <i>Springer Earth System Sciences</i> , 2015, , 125-129.	0.2	3
72	Regional and global effects of southern ocean constraints in a global model. <i>Ocean Dynamics</i> , 2008, 58, 155-168.	2.2	2

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73	Eberhard Fahrback (1948-2013). <i>Eos</i> , 2013, 94, 423-424.	0.1	0
74	Data Analysis and Modeling of the Amundsen Sea Embayment. <i>Springer Earth System Sciences</i> , 2015, , 131-136.	0.2	0