Hartmut H Hellmer

List of Publications by Year
in descending order

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	Delayed Antarctic sea-ice decline in high-resolution climate change simulations. Nature Communications, 2022, 13, 637.	12.8	31
2	Automated iceberg tracking with a machine learning approach applied to SAR imagery: A Weddell sea case study. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 172, 189-206.	11.1	20
3	Observed interannual changes beneath Filchner-Ronne Ice Shelf linked to large-scale atmospheric circulation. Nature Communications, 2021, 12, 2961.	12.8	26
4	FRIS Revisited in 2018: On the Circulation and Water Masses at the Filchner and Ronne Ice Shelves in the Southern Weddell Sea. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017269.	2.6	23
5	Exceptionally Warm and Prolonged Flow of Warm Deep Water Toward the Filchnerâ€Ronne Ice Shelf in 2017. Geophysical Research Letters, 2020, 47, e2020GL088119.	4.0	20
6	Necessary Conditions for Warm Inflow Toward the Filchner Ice Shelf, Weddell Sea. Geophysical Research Letters, 2020, 47, e2020GL089237.	4.0	23
7	Impact of West Antarctic ice shelf melting on Southern Ocean hydrography. Cryosphere, 2020, 14, 2205-2216.	3.9	22
8	Three Years of Nearâ€Coastal Antarctic Iceberg Distribution From a Machine Learning Approach Applied to SAR Imagery. Journal of Geophysical Research: Oceans, 2019, 124, 6658-6672.	2.6	17
9	The Weddell Gyre, Southern Ocean: Present Knowledge and Future Challenges. Reviews of Geophysics, 2019, 57, 623-708.	23.0	105
10	Three decades of deep water mass investigation in the Weddell Sea (1984â€“2014): Temporal variability and changes. Deep-Sea Research Part II: Topical Studies in Oceanography, 2018, 149, 70-83.	1.4	27
11	On the ventilation of Bransfield Strait deep basins. Deep-Sea Research Part II: Topical Studies in Oceanography, 2018, 149, 25-30.	1.4	14
12	Intercomparison of Antarctic ice-shelf, ocean, and sea-ice interactions simulated by MetROMS-iceshelf and FESOM 1.4. Geoscientific Model Development, 2018, 11, 1257-1292.	3.6	30
13	Basal Melt and Freezing Rates From First Noble Gas Samples Beneath an Ice Shelf. Geophysical Research Letters, 2018, 45, 8455-8461.	4.0	15
14	Future Projections of Antarctic Ice Shelf Melting Based on CMIP5 Scenarios. Journal of Climate, 2018, 31, 5243-5261.	3.2	62
15	The Fate of the Southern Weddell Sea Continental Shelf in a Warming Climate. Journal of Climate, 2017, 30, 4337-4350.	3.2	77
16	A simulation of small to giant <scp>A</scp>ntarctic iceberg evolution: Differential impact on climatology estimates. Journal of Geophysical Research: Oceans, 2017, 122, 3170-3190.	2.6	61
17	From pole to pole: 33Âyears of physical oceanography onboard R/V <i>Polarstern</i>. Earth System Science Data, 2017, 9, 211-220.	9.9	13
18	A Multidisciplinary Perspective on Climate Model Evaluation For Antarctica. Bulletin of the American Meteorological Society, 2016, 97, ES23-ES26.	3.3	7

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19	Meteorology and oceanography of the Atlantic sector of the Southern Oceanâ€”a review of German achievements from the last decade. Ocean Dynamics, 2016, 66, 1379-1413.	2.2	12
20	Century-scale simulations of the response of the West Antarctic Ice Sheet to a warming climate. Cryosphere, 2015, 9, 1579-1600.	3.9	125
21	Precursors of Antarctic Bottom Water formed on the continental shelf off Larsen Ice Shelf. Deep-Sea Research Part I: Oceanographic Research Papers, 2015, 99, 1-9.	1.4	25
22	Future sea-level rise due to projected ocean warming beneath the Filchner Ronne Ice Shelf: A coupled model study. Earth and Planetary Science Letters, 2015, 431, 217-224.	4.4	20
23	The Flow of Dense Water Plumes in the Western Weddell Sea Simulated with the Finite Element Ocean Model (FEOM). Springer Earth System Sciences, 2015, , 125-129.	0.2	3
24	Data Analysis and Modeling of the Amundsen Sea Embayment. Springer Earth System Sciences, 2015, , 131-136.	0.2	0
25	Projecting Antarctic ice discharge using response functions from SeaRISE ice-sheet models. Earth System Dynamics, 2014, 5, 271-293.	7.1	103
26	Modeling the spreading of glacial meltwater from the Amundsen and Bellingshausen Seas. Geophysical Research Letters, 2014, 41, 7942-7949.	4.0	81
27	On the difficulty of modeling Circumpolar Deep Water intrusions onto the Amundsen Sea continental shelf. Ocean Modelling, 2014, 84, 26-34.	2.4	65
28	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. Ocean Dynamics, 2013, 63, 1011-1026.	2.2	109
29	From circumpolar deep water to the glacial meltwater plume on the eastern Amundsen Shelf. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 77, 50-62.	1.4	61
30	Eberhard Fahrbach (1948-2013). Eos, 2013, 94, 423-424.	0.1	0
31	Enhanced crossâ€shelf exchange by tides in the western Ross Sea. Geophysical Research Letters, 2013, 40, 5735-5739.	4.0	33
32	Ice-shelf basal melting in a global finite-element sea-ice/ice-shelf/ocean model. Annals of Glaciology, 2012, 53, 303-314.	1.4	108
33	Calibrated prediction of Pine Island Glacier retreat during the 21st and 22nd centuries with a coupled flowline model. Earth and Planetary Science Letters, 2012, 333-334, 191-199.	4.4	77
34	The Amundsen Sea and the Antarctic Ice Sheet. Oceanography, 2012, 25, 154-163.	1.0	117
35	Twenty-first-century warming of a large Antarctic ice-shelf cavity by a redirected coastal current. Nature, 2012, 485, 225-228.	27.8	332
36	On the freshening of the northwestern Weddell Sea continental shelf. Ocean Science, 2011, 7, 305-316.	3.4	62

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37	A box model of circulation and melting in ice shelf caverns. Ocean Dynamics, 2010, 60, 141-153.	2.2	45
38	Overflow dynamics and bottom water formation in the western Ross Sea: Influence of tides. Journal of Geophysical Research, 2010, 115, .	3.3	13
39	Temporal variations and trends of CFC11 and CFC12 surface-water saturations in Antarctic marginal seas: Results of a regional ocean circulation model. Deep-Sea Research Part I: Oceanographic Research Papers, 2010, 57, 175-198.	1.4	7
40	Weddell Sea anomalies: Excitation, propagation, and possible consequences. Geophysical Research Letters, 2009, 36, .	4.0	19
41	Regional and global effects of southern ocean constraints in a global model. Ocean Dynamics, 2008, 58, 155-168.	2.2	2
42	Evidence of deep- and bottom-water formation in the western Weddell Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 1098-1116.	1.4	77
43	Early summer thermohaline characteristics and mixing in the western Weddell Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 1117-1131.	1.4	23
44	The ISPOL drift experiment. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 913-917.	1.4	38
45	Formation and spreading of Antarctic deep and bottom waters inferred from a chlorofluorocarbon (CFC) simulation. Journal of Geophysical Research, 2007, 112, .	3.3	9
46	Ocean/ice shelf interaction in the southern Weddell Sea: results of a regional numerical helium/neon simulation. Ocean Dynamics, 2007, 57, 1-11.	2.2	17
47	Weddell Sea iceberg drift: Five years of observations. Journal of Geophysical Research, 2006, 111, .	3.3	72
48	Sea ice feedbacks observed in western Weddell Sea. Eos, 2006, 87, 173.	0.1	30
49	On the influence of adequate Weddell Sea characteristics in a large-scale global ocean circulation model. Ocean Dynamics, 2005, 55, 88-99.	2.2	15
50	Amundsen Sea ice production and transport. Journal of Geophysical Research, 2005, 110, .	3.3	44
51	Impact of Antarctic ice shelf basal melting on sea ice and deep ocean properties. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	158
52	Seasonal variation in circulation and water mass distribution on the Ross Sea continental shelf. Antarctic Science, 2003, 15, 3-11.	0.9	66
53	M2 tidal dynamics in the Ross Sea. Antarctic Science, 2003, 15, 41-46.	0.9	23
54	Simulations of ice-ocean dynamics in the Weddell Sea 1. Model configuration and validation. Journal of Geophysical Research, 2002, 107, 10-1.	3.3	82

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55	Simulations of ice-ocean dynamics in the Weddell Sea 2. Interannual variability 1985â€“1993. Journal of Geophysical Research, 2002, 107, 11-1.	3.3	53
56	On the near-bottom variability in the northwestern Weddell Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 4767-4790.	1.4	36
57	On the transport, variability and origin of dense water masses crossing the South Scotia Ridge. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 4807-4825.	1.4	44
58	Tidal Mixing in the Southern Weddell Sea: Results from a Three-Dimensional Model. Journal of Physical Oceanography, 2002, 32, 2151-2170.	1.7	29
59	The Southern Ocean: A ventilation contributor with multiple sources. Geophysical Research Letters, 2001, 28, 2927-2930.	4.0	19
60	The role of sea ice in the fresh-water budget of the Weddell Sea, Antarctica. Annals of Glaciology, 2001, 33, 419-424.	1.4	25
61	On the origin of the deep CFC maximum in the Eastern Weddell Sea-Numerical model results. Geophysical Research Letters, 2001, 28, 2859-2862.	4.0	15
62	Modeling giant-iceberg drift under the influence of sea ice in the Weddell Sea, Antarctica. Journal of Glaciology, 2001, 47, 452-460.	2.2	69
63	The Role of Meltwater Advection in the Formulation of Conservative Boundary Conditions at an Iceâ€“Ocean Interface. Journal of Physical Oceanography, 2001, 31, 285-296.	1.7	58
64	A numerical model of the Weddell Sea: Large-scale circulation and water mass distribution. Journal of Geophysical Research, 1999, 104, 23375-23391.	3.3	126
65	Glaciological and oceanographic evidence of high melt rates beneath Pine Island Glacier, West Antarctica. Journal of Glaciology, 1997, 43, 114-121.	2.2	83
66	Glaciological and oceanographic evidence of high melt rates beneath Pine Island Glacier, West Antarctica. Journal of Glaciology, 1997, 43, 114-121.	2.2	21
67	Antarctic Ice Sheet melting in the southeast Pacific. Geophysical Research Letters, 1996, 23, 957-960.	4.0	300
68	Seasonal circulation under the eastern Ross Ice Shelf, Antarctica. Journal of Geophysical Research, 1995, 100, 10873.	3.3	28
69	Deep and Bottom Water of the Weddell Sea's Western Rim. Science, 1993, 262, 95-97.	12.6	115
70	Ocean interactions with the base of Amery Ice Shelf, Antarctica. Journal of Geophysical Research, 1992, 97, 20305-20317.	3.3	39
71	A two-dimensional model for the thermohaline circulation under an ice shelf. Antarctic Science, 1989, 1, 325-336.	0.9	215
72	The occurrence of ice platelets at 250 m depth near the Filchner Ice Shelf and its significance for sea ice biology. Deep-sea Research Part A, Oceanographic Research Papers, 1986, 33, 141-148.	1.5	118

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73	Oceanic Erosion of a Floating Antarctic Glacier in the Amundsen Sea. Antarctic Research Series, 0, , 83-99.	0.2	63
74	Marine Ice Beneath Filchner Ice Shelf: Evidence from a Multi-Disciplinary Approach. Antarctic Research Series, 0, , 319-339.	0.2	19