

Richard C A Hindmarsh

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7962863/publications.pdf>

Version: 2024-02-01

109
papers

8,137
citations

70961

41
h-index

51492

86
g-index

118
all docs

118
docs citations

118
times ranked

4576
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress on combining geomorphological and geochronological data with ice sheet modelling, demonstrated using the last Britishâ€“Irish Ice Sheet. <i>Journal of Quaternary Science</i> , 2021, 36, 946-960.	1.1	20
2	Timing, pace and controls on ice sheet retreat: an introduction to the BRITICEâ€“CHRONO transect reconstructions of the Britishâ€“Irish Ice Sheet. <i>Journal of Quaternary Science</i> , 2021, 36, 673-680.	1.1	19
3	An 83â€“000-year-old ice core from Roosevelt Island, Ross Sea, Antarctica. <i>Climate of the Past</i> , 2020, 16, 1691-1713.	1.3	14
4	A 2700-year annual timescale and accumulation history for an ice core from Roosevelt Island, West Antarctica. <i>Climate of the Past</i> , 2019, 15, 751-779.	1.3	55
5	ATAT 1.1, the Automated Timing Accordance Tool for comparing ice-sheet model output with geochronological data. <i>Geoscientific Model Development</i> , 2019, 12, 933-953.	1.3	11
6	Ice Sheet and Glacier Modelling. , 2018, , 607-663.		5
7	Basal freeze-on generates complex ice-sheet stratigraphy. <i>Nature Communications</i> , 2018, 9, 4669.	5.8	23
8	The Ross Sea Dipole â€“ temperature, snow accumulation and sea ice variability in the Ross Sea region, Antarctica, over the past 2700 years. <i>Climate of the Past</i> , 2018, 14, 193-214.	1.3	44
9	Microclimate and mass fluxes of debris-laden ice surfaces in Taylor Valley, Antarctica. <i>Antarctic Science</i> , 2015, 27, 85-100.	0.5	4
10	Flow speed within the Antarctic ice sheet and its controls inferred from satellite observations. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1171-1188.	1.0	57
11	Assessment of ice flow dynamics in the zone close to the calving front of Antarctic ice shelves. <i>Journal of Glaciology</i> , 2015, 61, 1194-1206.	1.1	9
12	Antarctic ice rises and rumples: Their properties and significance for ice-sheet dynamics and evolution. <i>Earth-Science Reviews</i> , 2015, 150, 724-745.	4.0	103
13	On the reconstruction of palaeo-ice sheets: Recent advances and future challenges. <i>Quaternary Science Reviews</i> , 2015, 125, 15-49.	1.4	125
14	Low post-glacial rebound rates in the Weddell Sea due to Late Holocene ice-sheet readvance. <i>Earth and Planetary Science Letters</i> , 2015, 413, 79-89.	1.8	48
15	Potential sea-level rise from Antarctic ice-sheet instability constrained by observations. <i>Nature</i> , 2015, 528, 115-118.	13.7	298
16	Full-depth englacial vertical ice sheet velocities measured using phase-sensitive radar. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 2604-2618.	1.0	37
17	Constraining past accumulation in the central Pine Island Glacier basin, West Antarctica, using radio-echo sounding. <i>Journal of Glaciology</i> , 2014, 60, 553-562.	1.1	17
18	Similarity of organized patterns in driving and basal stresses of Antarctic and Greenland ice sheets beneath extensive areas of basal sliding. <i>Geophysical Research Letters</i> , 2014, 41, 3925-3932.	1.5	58

#	ARTICLE	IF	CITATIONS
19	The relationship between sticky spots and radar reflectivity beneath an active West Antarctic ice stream. <i>Annals of Glaciology</i> , 2014, 55, 29-38.	2.8	10
20	Calculating balance velocities with a membrane stress correction. <i>Journal of Glaciology</i> , 2014, 60, 294-304.	1.1	5
21	Late Holocene ice-flow reconfiguration in the Weddell Sea sector of West Antarctica. <i>Quaternary Science Reviews</i> , 2013, 78, 98-107.	1.4	53
22	The instability theory of drumlin formation and its explanation of their varied composition and internal structure. <i>Quaternary Science Reviews</i> , 2013, 62, 77-96.	1.4	90
23	Grounding line transient response in marine ice sheet models. <i>Cryosphere</i> , 2013, 7, 395-406.	1.5	29
24	Regular Patterns in Frictional Resistance of Ice-Stream Beds Seen by Surface Data Inversion. <i>Science</i> , 2013, 342, 1086-1089.	6.0	74
25	Bedmap2: improved ice bed, surface and thickness datasets for Antarctica. <i>Cryosphere</i> , 2013, 7, 375-393.	1.5	1,455
26	Computing the volume response of the Antarctic Peninsula ice sheet to warming scenarios to 2200. <i>Journal of Glaciology</i> , 2013, 59, 397-409.	1.1	31
27	Grounding-line migration in plan-view marine ice-sheet models: results of the ice2sea MISIP3d intercomparison. <i>Journal of Glaciology</i> , 2013, 59, 410-422.	1.1	179
28	Where to find 1.5 million yr old ice for the IPICS "Oldest-Ice" ice core. <i>Climate of the Past</i> , 2013, 9, 2489-2505.	1.3	123
29	Results of the Marine Ice Sheet Model Intercomparison Project, MISIP. <i>Cryosphere</i> , 2012, 6, 573-588.	1.5	191
30	Frequency response of ice streams. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 3285-3310.	1.0	29
31	Recent Antarctic Peninsula warming relative to Holocene climate and ice-shelf history. <i>Nature</i> , 2012, 489, 141-144.	13.7	265
32	An observationally validated theory of viscous flow dynamics at the ice-shelf calving front. <i>Journal of Glaciology</i> , 2012, 58, 375-387.	1.1	35
33	Flow at iceâ€divide triple junctions: 1. Threeâ€dimensional fullâ€Stokes modeling. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	13
34	Flow at iceâ€divide triple junctions: 2. Threeâ€dimensional views of isochrone architecture from iceâ€penetrating radar surveys. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	18
35	Timeâ€dependence of the spatial pattern of accumulation rate in East Antarctica deduced from isochronic radar layers using a 3â€numerical ice flow model. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	33
36	Widespread low rates of Antarctic glacial isostatic adjustment revealed by GPS observations. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	92

#	ARTICLE	IF	CITATIONS
37	Testing for flow in the north polar layered deposits of Mars using radar stratigraphy and a simple 3D ice-flow model. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	22
38	In-situ quantification of ice rheology and direct measurement of the Raymond Effect at Summit, Greenland using a phase-sensitive radar. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	49
39	Ill-posedness of the shallow-ice approximation when modelling thermo-viscous instabilities. <i>Journal of Glaciology</i> , 2011, 57, 1177-1178.	1.1	6
40	Automated processing to derive dip angles of englacial radar reflectors in ice sheets. <i>Journal of Glaciology</i> , 2011, 57, 260-266.	1.1	28
41	Holocene stability of the Amundsen-Weddell ice divide, West Antarctica. <i>Geology</i> , 2011, 39, 935-938.	2.0	31
42	Getting around Antarctica: new high-resolution mappings of the grounded and freely-floating boundaries of the Antarctic ice sheet created for the International Polar Year. <i>Cryosphere</i> , 2011, 5, 569-588.	1.5	187
43	Ellsworth Subglacial Lake, West Antarctica: A review of its history and recent field campaigns. <i>Geophysical Monograph Series</i> , 2011, , 221-233.	0.1	11
44	Thin-Film Flows with Wall Slip: An Asymptotic Analysis of Higher Order Glacier Flow Models. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2010, 63, 73-114.	0.5	193
45	Coupling of ice shelf melting and buttressing is a key process in ice sheets dynamics. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	125
46	Comment on Shaw J., Pugin, A. and Young, R. (2008): "A meltwater origin for Antarctic shelf bedforms with special attention to megalineations", <i>Geomorphology</i> 102, 364-375. <i>Geomorphology</i> , 2010, 117, 195-198.	1.1	16
47	Full Stokes modeling of marine ice sheets: influence of the grid size. <i>Annals of Glaciology</i> , 2009, 50, 109-114.	2.8	77
48	Formation of mega-scale glacial lineations observed beneath a West Antarctic ice stream. <i>Nature Geoscience</i> , 2009, 2, 585-588.	5.4	281
49	On the effects of divide migration, along-ridge flow, and basal sliding on isochrones near an ice divide. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	39
50	Consistent generation of ice streams via thermo-viscous instabilities modulated by membrane stresses. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	64
51	A large-scale numerical model for computing isochrone geometry. <i>Annals of Glaciology</i> , 2009, 50, 130-140.	2.8	28
52	Formation mechanisms for ice stream lateral shear margin moraines. <i>Earth Surface Processes and Landforms</i> , 2008, 33, 610-626.	1.2	25
53	Bed Ribbing Instability Explanation: Testing a numerical model of ribbed moraine formation arising from coupled flow of ice and subglacial sediment. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	67
54	Benchmark experiments for higher-order and full-Stokes ice sheet models (ISMIP-HOM). <i>Cryosphere</i> , 2008, 2, 95-108.	1.5	221

#	ARTICLE	IF	CITATIONS
55	Influence of a non-uniform velocity field on isochrone geometry along a steady flowline of an ice sheet. <i>Journal of Glaciology</i> , 2007, 53, 612-622.	1.1	36
56	Three-dimensional flow influences on radar layer stratigraphy. <i>Annals of Glaciology</i> , 2007, 46, 22-28.	2.8	40
57	Did ice streams shape the largest channels on Mars?. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	57
58	Stress gradient damping of thermoviscous ice flow instabilities. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	22
59	Draping or overriding: The effect of horizontal stress gradients on internal layer architecture in ice sheets. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	43
60	Dating ice flow change near the flow divide at Roosevelt Island, Antarctica, by using a thermomechanical model to predict radar stratigraphy. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	37
61	Analytical solutions for the effect of topography, accumulation rate and lateral flow divergence on isochrone layer geometry. <i>Journal of Glaciology</i> , 2006, 52, 191-202.	1.1	31
62	Determining the contribution of Antarctica to sea-level rise using data assimilation methods. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006, 364, 1841-1865.	1.6	12
63	The role of membrane-like stresses in determining the stability and sensitivity of the Antarctic ice sheets: back pressure and grounding line motion. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006, 364, 1733-1767.	1.6	72
64	A numerical comparison of approximations to the Stokes equations used in ice sheet and glacier modeling. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	145
65	Subglacial Lake Ellsworth: A candidate for in situ exploration in West Antarctica. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	53
66	Thermoviscous stability of ice-sheet flows. <i>Journal of Fluid Mechanics</i> , 2004, 502, 17-40.	1.4	23
67	A modelling study of the response of Hatherton Glacier to Ross Ice Sheet grounding line retreat. <i>Global and Planetary Change</i> , 2004, 42, 143-153.	1.6	19
68	Recommendations for the collection and synthesis of Antarctic Ice Sheet mass balance data. <i>Global and Planetary Change</i> , 2004, 42, 1-15.	1.6	38
69	Evidence for a large surface ablation zone in central East Antarctica during the last Ice Age. <i>Quaternary Research</i> , 2003, 59, 114-121.	1.0	30
70	Optimal estimation of changes in the mass of ice sheets. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	17
71	Thermomechanical coupling of ice flow with the bedrock. <i>Annals of Glaciology</i> , 2003, 37, 390-396.	2.8	1
72	Influence of channelling on heating in ice-sheet flows. <i>Geophysical Research Letters</i> , 2001, 28, 3681-3684.	1.5	21

#	ARTICLE	IF	CITATIONS
73	Centurial-millennial ice-rafted debris pulses from ablating marine ice sheets. <i>Geophysical Research Letters</i> , 2001, 28, 2477-2480.	1.5	5
74	Coupled marine-ice-sheet/Earth dynamics using a dynamically consistent ice-sheet model and a self-gravitating viscous Earth model. <i>Journal of Glaciology</i> , 2001, 47, 258-270.	1.1	17
75	Dynamical processes involved in the retreat of marine ice sheets. <i>Journal of Glaciology</i> , 2001, 47, 271-282.	1.1	110
76	Notes on Basic Glaciological Computational Methods and Algorithms. , 2001, , 222-249.		24
77	Sliding over anisotropic beds. <i>Annals of Glaciology</i> , 2000, 30, 137-145.	2.8	4
78	A comparison of two spectral approaches for computing the Earth response to surface loads. <i>Geophysical Journal International</i> , 2000, 141, 282-298.	1.0	11
79	Use of a viscous model of till rheology to describe gravitational loading instabilities in glacial sediments. <i>Geological Society Special Publication</i> , 2000, 176, 191-201.	0.8	8
80	On the numerical computation of temperature in an ice sheet. <i>Journal of Glaciology</i> , 1999, 45, 568-574.	1.1	7
81	On the numerical computation of temperature in an ice sheet. <i>Journal of Glaciology</i> , 1999, 45, 568-574.	1.1	40
82	Pore-water signal of marine ice-sheets. <i>Global and Planetary Change</i> , 1999, 23, 197-211.	1.6	3
83	Coupled ice-till dynamics and the seeding of drumlins and bedrock forms. <i>Annals of Glaciology</i> , 1999, 28, 221-230.	2.8	35
84	Sublimation of ice through sediment in beacon valley, antarctica. <i>Geografiska Annaler, Series A: Physical Geography</i> , 1998, 80, 209-219.	0.6	63
85	Sensitivity of the divide position at Siple Dome, West Antarctica, to boundary forcing. <i>Annals of Glaciology</i> , 1998, 27, 207-214.	2.8	31
86	Ice-stream surface texture, sticky spots, waves and breathers: the coupled flow of ice, till and water. <i>Journal of Glaciology</i> , 1998, 44, 589-614.	1.1	23
87	The stability of a viscous till sheet coupled with ice flow, considered at wavelengths less than the ice thickness. <i>Journal of Glaciology</i> , 1998, 44, 285-292.	1.1	71
88	Drumlinization and drumlin-forming instabilities: viscous till mechanisms. <i>Journal of Glaciology</i> , 1998, 44, 293-314.	1.1	101
89	Ice-stream surface texture, sticky spots, waves and breathers: the coupled flow of ice, till and water. <i>Journal of Glaciology</i> , 1998, 44, 589-614.	1.1	19
90	The stability of a viscous till sheet coupled with ice flow, considered at wavelengths less than the ice thickness. <i>Journal of Glaciology</i> , 1998, 44, 285-292.	1.1	62

#	ARTICLE	IF	CITATIONS
91	Drumlinization and drumlin-forming instabilities: viscous till mechanisms. <i>Journal of Glaciology</i> , 1998, 44, 293-314.	1.1	75
92	Normal modes of an ice sheet. <i>Journal of Fluid Mechanics</i> , 1997, 335, 393-413.	1.4	10
93	Deforming beds: Viscous and plastic scales of deformation. <i>Quaternary Science Reviews</i> , 1997, 16, 1039-1056.	1.4	97
94	Use of ice-sheet normal modes for initialization and modelling small changes. <i>Annals of Glaciology</i> , 1997, 25, 85-95.	2.8	6
95	Use of ice-sheet normal modes for initialization and modelling small changes. <i>Annals of Glaciology</i> , 1997, 25, 85-95.	2.8	10
96	Cavities and the effective pressure between abrading clasts and the bedrock. <i>Annals of Glaciology</i> , 1996, 22, 32-40.	2.8	12
97	Time-step limits for stable solutions of the ice-sheet equation. <i>Annals of Glaciology</i> , 1996, 23, 74-85.	2.8	66
98	Stability of ice rises and uncoupled marine ice sheets. <i>Annals of Glaciology</i> , 1996, 23, 105-115.	2.8	44
99	Stochastic perturbation of divide position. <i>Annals of Glaciology</i> , 1996, 23, 94-104.	2.8	14
100	Stabilists strike again. <i>Nature</i> , 1995, 376, 389-391.	13.7	28
101	Modelling the dynamics of ice sheets. <i>Progress in Physical Geography</i> , 1993, 17, 391-412.	1.4	38
102	Qualitative Dynamics of Marine Ice Sheets. , 1993, , 67-99.		66
103	Styles of subglacial glaciotectionic deformation within the context of the anglian ice-sheet. <i>Earth Surface Processes and Landforms</i> , 1990, 15, 227-241.	1.2	142
104	Time-scales and degrees of freedom operating in the evolution of continental ice-sheets. <i>Transactions of the Royal Society of Edinburgh: Earth Sciences</i> , 1990, 81, 371-384.	1.0	37
105	Modes of Operation of Thermo-Mechanically Coupled Ice Sheets. <i>Annals of Glaciology</i> , 1989, 12, 57-69.	2.8	52
106	Modes of Operation of Thermo-Mechanically Coupled Ice Sheets. <i>Annals of Glaciology</i> , 1989, 12, 57-69.	2.8	36
107	Numerical fixed domain mapping solution of free-surface flows coupled with an evolving interior field. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 1988, 12, 437-459.	1.7	34
108	The unsteady plane flow of ice-sheets: A parabolic problem with two moving boundaries. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1987, 39, 183-225.	0.4	26

#	ARTICLE	IF	CITATIONS
109	Sediment deformation beneath glaciers: Rheology and geological consequences. Journal of Geophysical Research, 1987, 92, 9059-9082.	3.3	818