Daniel L Feltham

List of Publications by Year
in descending order

74 papers	2,467 citations	159585 30 h-index	223800 46 g-index
75 all docs	75 docs citations	75 times ranked	2816 citing authors

#	Article	IF	Citations
1	Different mechanisms of Arctic and Antarctic sea ice response to ocean heat transport. Climate Dynamics, 2022, 59, 315-329.	3.8	1
2	Impact of Granular Behaviour of Fragmented Sea Ice on Marginal Ice Zone Dynamics. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2022, , 261-274.	0.2	5
3	Sea ice floe size: its impact on pan-Arctic and local ice mass and required model complexity. Cryosphere, 2022, 16, 2565-2593.	3.9	6
4	An inter-comparison of the mass budget of the Arctic sea ice in CMIP6 models. Cryosphere, 2021, 15, 951-982.	3.9	42
5	A multi-model CMIP6-PMIP4 study of Arctic sea ice at 127â€‰ka: sea ice data compilation and model differences. Climate of the Past, 2021, 17, 37-62.	3.4	29
6	Sea-ice-free Arctic during the Last Interglacial supports fast future loss. Nature Climate Change, 2020, 10, 928-932.	18.8	71
7	Should Sea-Ice Modeling Tools Designed for Climate Research Be Used for Short-Term Forecasting?. Current Climate Change Reports, 2020, 6, 121-136.	8.6	14
8	Sea Ice Formation in a Coupled Climate Model Including Grease Ice. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002103.	3.8	5
9	Impact of sea ice floe size distribution on seasonal fragmentation and melt of Arctic sea ice. Cryosphere, 2020, 14, 403-428.	3.9	42
10	Modeling Sea Ice. Notices of the American Mathematical Society, 2020, 67, 1.	0.2	13
11	The Future of Sea Ice Modeling: Where Do We Go from Here?. Bulletin of the American Meteorological Society, 2020, 101, E1304-E1311.	3.3	22
12	Changes of the Arctic marginal ice zone during the satellite era. Cryosphere, 2020, 14, 1971-1984.	3.9	29
13	Impacts of Oceanic and Atmospheric Heat Transports on Sea Ice Extent. Journal of Climate, 2020, 33, 7197-7215.	3.2	3
14	Sea Iceâ€"Ocean Feedbacks in the Antarctic Shelf Seas. Journal of Physical Oceanography, 2019, 49, 2423-2446.	1.7	6
15	New insight from CryoSat-2 sea ice thickness for sea ice modelling. Cryosphere, 2019, 13, 125-139.	3.9	31
16	A Mathematical Model of Melt Lake Development on an Ice Shelf. Journal of Advances in Modeling Earth Systems, 2018, 10, 262-283.	3.8	19
17	Modelling the fate of surface melt on the Larsen C Ice Shelf. Cryosphere, 2018, 12, 3565-3575.	3.9	15
18	Recent multivariate changes in the North Atlantic climate system, with a focus on 2005â€"2016. International Journal of Climatology, 2018, 38, 5050-5076.	3.5	34

#	Article	IF	Citations
19	Warm winter, thin ice?. Cryosphere, 2018, 12, 1791-1809.	3.9	41
20	Modelling of sea-ice phenomena. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20180157.	3.4	7
21	Skillful spring forecasts of September Arctic sea ice extent using passive microwave sea ice observations. Earth's Future, 2017, 5, 254-263.	6.3	45
22	A Model of Sea Ice Formation in Leads and Polynyas. Journal of Physical Oceanography, 2017, 47, 1701-1718.	1.7	12
23	The frequency and extent of sub-ice phytoplankton blooms in the Arctic Ocean. Science Advances, 2017, 3, e1601191.	10.3	159
24	Micromechanics of sea ice frictional slip from test basin scale experiments. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20150354.	3.4	2
25	Characterizing Arctic sea ice topography using high-resolution IceBridge data. Cryosphere, 2016, 10, 1161-1179.	3.9	37
26	The impact of variable sea ice roughness on changes in <scp>A</scp>rctic <scp>O</scp>cean surface stress: A model study. Journal of Geophysical Research: Oceans, 2016, 121, 1931-1952.	2.6	66
27	Processes controlling surface, bottom and lateral melt of Arctic sea ice in a state of the art sea ice model. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140167.	3.4	43
28	Study of the Impact of Ice Formation in Leads upon the Sea Ice Pack Mass Balance Using a New Frazil and Grease Ice Parameterization. Journal of Physical Oceanography, 2015, 45, 2025-2047.	1.7	20
29	The refreezing of melt ponds on <scp>A</scp>rctic sea ice. Journal of Geophysical Research: Oceans, 2015, 120, 647-659.	2.6	29
30	Sea ice and the ocean mixed layer over the Antarctic shelf seas. Cryosphere, 2014, 8, 761-783.	3.9	43
31	The Response of the Sea Ice Edge to Atmospheric and Oceanic Jet Formation. Journal of Physical Oceanography, 2014, 44, 2292-2316.	1.7	15
32	Impact of Variable Atmospheric and Oceanic Form Drag on Simulations of Arctic Sea Ice*. Journal of Physical Oceanography, 2014, 44, 1329-1353.	1.7	152
33	September Arctic sea-ice minimum predicted by spring melt-pond fraction. Nature Climate Change, 2014, 4, 353-357.	18.8	177
34	Impact of a new anisotropic rheology on simulations of Arctic sea ice. Journal of Geophysical Research: Oceans, 2013, 118, 91-107.	2.6	83
35	Critical slip and time dependence in sea ice friction. Cold Regions Science and Technology, 2013, 90-91, 9-13.	3.5	13
36	Eddy-Driven Exchange between the Open Ocean and a Subâ€"Ice Shelf Cavity. Journal of Physical Oceanography, 2013, 43, 2372-2387.	1.7	34

#	Article	IF	Citations
37	Impact of Atmospheric Forcing on Antarctic Continental Shelf Water Masses. Journal of Physical Oceanography, 2013, 43, 920-940.	1.7	51
38	Rheology of Discrete Failure Regimes of Anisotropic Sea Ice. Journal of Physical Oceanography, 2012, 42, 1065-1082.	1.7	7
39	Impact of melt ponds on Arctic sea ice simulations from 1990 to 2007. Journal of Geophysical Research, 2012, 117, .	3.3	80
40	Modeling Coulombic failure of sea ice with leads. Journal of Geophysical Research, 2011, 116, .	3.3	16
41	Modelling the reorientation of sea-ice faults as the wind changes direction. Annals of Glaciology, 2011, 52, 83-90.	1.4	40
42	Incorporation of a physically based melt pond scheme into the sea ice component of a climate model. Journal of Geophysical Research, 2010, 115, .	3.3	85
43	Effect of shear rupture on aggregate scale formation in sea ice. Journal of Geophysical Research, 2010, 115, .	3.3	27
44	Numerical simulation of the Filchner overflow. Journal of Geophysical Research, 2009, 114, .	3.3	14
45	The long-term stability of a possible aqueous ammonium sulfate ocean inside Titan. Icarus, 2008, 197, 137-151.	2.5	69
46	Sea Ice Rheology. Annual Review of Fluid Mechanics, 2008, 40, 91-112.	25.0	105
47	Generation of a Buoyancy-Driven Coastal Current by an Antarctic Polynya. Journal of Physical Oceanography, 2008, 38, 1011-1032.	1.7	8
48	The Effect of a New Drag-Law Parameterization on Ice Shelf Water Plume Dynamics. Journal of Physical Oceanography, 2007, 37, 1778-1792.	1.7	3
49	On the Nusselt number for frazil ice growthâ€"a correction to â€Frazil evolution in channelsâ€œ by Lars Hammar and Hung-Tao Shen. Journal of Hydraulic Research/De Recherches Hydrauliques, 2007, 45, 421-424.	1.7	12
50	A continuum model of melt pond evolution on Arctic sea ice. Journal of Geophysical Research, 2007, 112, .	3.3	46
51	Consistent and contrasting decadal Arctic sea ice thickness predictions from a highly optimized sea ice model. Journal of Geophysical Research, 2007, 112, .	3.3	12
52	Ice Shelf Water plume flow beneath Filchner-Ronne Ice Shelf, Antarctica. Journal of Geophysical Research, 2007, 112, .	3.3	28
53	Optimization of a Sea Ice Model Using Basinwide Observations of Arctic Sea Ice Thickness, Extent, and Velocity. Journal of Climate, 2006, 19, 1089-1108.	3.2	49
54	A Multithickness Sea Ice Model Accounting for Sliding Friction. Journal of Physical Oceanography, 2006, 36, 1719-1738.	1.7	11

#	Article	IF	Citations
55	The Effects of Rotation and Ice Shelf Topography on Frazil-Laden Ice Shelf Water Plumes. Journal of Physical Oceanography, 2006, 36, 2312-2327.	1.7	50
56	Anisotropic model for granulated sea ice dynamics. Journal of the Mechanics and Physics of Solids, 2006, 54, 1147-1185.	4.8	14
57	Modelling the rheology of sea ice as a collection of diamond-shaped floes. Journal of Non-Newtonian Fluid Mechanics, 2006, 138, 22-32.	2.4	44
58	Granular flow in the marginal ice zone. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 1677-1700.	3.4	53
59	Multiple stationary solutions of an irradiated slab. Journal of Crystal Growth, 2005, 276, 688-697.	1.5	3
60	A mathematical model of crystallization in an emulsion. Journal of Chemical Physics, 2005, 122, 174910.	3.0	5
61	Frazil dynamics and precipitation in a water column with depth-dependent supercooling. Journal of Fluid Mechanics, 2005, 530, 101-124.	3.4	40
62	Improving the spatial distribution of modeled Arctic sea ice thickness. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	22
63	Dependence of Sea Ice Yield-Curve Shape on Ice Thickness. Journal of Physical Oceanography, 2004, 34, 2852-2856.	1.7	11
64	Stability of an ice sheet on an elastic bed. European Journal of Mechanics, B/Fluids, 2004, 23, 681-694.	2.5	5
65	A continuum anisotropic model of sea-ice dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 2105-2140.	2.1	35
66	Influence of Mass Diffusion in Sea Ice Dynamical Models. Journal of Physical Oceanography, 2004, 34, 1468-1475.	1.7	0
67	A MATHEMATICAL ANALYSIS OF A MINIMAL MODEL OF NEMATODE MIGRATION IN SOIL. Journal of Biological Systems, 2002, 10, 15-32.	1.4	9
68	The influence of ocean flow on newly forming sea ice. Journal of Geophysical Research, 2002, 107, 1-1.	3.3	41
69	Analytical and numerical solutions describing the inward solidification of a binary melt. Chemical Engineering Science, 2001, 56, 2357-2370.	3.8	21
70	Similarity solutions describing the melting of a mushy layer. Journal of Crystal Growth, 2000, 208, 746-756.	1.5	16
71	Travelling waves in a model of species migration. Applied Mathematics Letters, 2000, 13, 67-73.	2.7	20
72	Analytical solutions of a minimal model of species migration in a bounded domain. Journal of Mathematical Biology, 2000, 40, 321-342.	1.9	4

#	Article	IF	Citations
73	Flow-induced morphological instability of a mushy layer. Journal of Fluid Mechanics, 1999, 391, 337-357.	3.4	38
74	Corrugations of the Sea-Ice-Ocean Interface Caused By Ocean Shear. , 1999, , 285-287.		0