Olivier Gagliardini

List of Publications by Year
in descending order

75	4,918	87723 38	102304 66
papers	citations	h-index	g-index

124	124	124	2762
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Geodetic point surface mass balances: a new approach to determine point surface mass balances on glaciers from remote sensing measurements. Cryosphere, 2021, 15, 1259-1276.	1.5	16
2	Do Existing Theories Explain Seasonal to Multiâ€Decadal Changes in Glacier Basal Sliding Speed?. Geophysical Research Letters, 2021, 48, e2021GL092858.	1.5	7
3	Sliding Relations for Glacier Slip With Cavities Over Threeâ€Dimensional Beds. Geophysical Research Letters, 2020, 47, e2019GL084924.	1.5	10
4	A full Stokes ice-flow model to assist the interpretation of millennial-scale ice cores at the high-Alpine drilling site Colle Gnifetti, Swiss/Italian Alps. Journal of Glaciology, 2020, 66, 35-48.	1.1	11
5	Comparing the long-term fate of a snow cave and a rigid container buried at Dome C, Antarctica. Cold Regions Science and Technology, 2020, 180, 103164.	1.6	0
6	Numerical modeling of the dynamics of the Mer de Glace glacier, French Alps: comparison with past observations and forecasting of near-future evolution. Cryosphere, 2020, 14, 3979-3994.	1.5	6
7	Assessment of sub-shelf melting parameterisations using the oceanâ€“ice-sheet coupled model NEMO(v3.6)â€“Elmer/Ice(v8.3). Geoscientific Model Development, 2019, 12, 2255-2283.	1.3	65
8	Sensitivity of centennial mass loss projections of the Amundsen basin to the friction law. Cryosphere, 2019, 13, 177-195.	1.5	56
9	The health of Antarctic ice shelves. Nature Climate Change, 2018, 8, 15-16.	8.1	3
10	Brief communication: Candidate sites of 1.5â€‰Myr old ice 37â€‰km southwest of the Dome C summit, East Antarctica. Cryosphere, 2018, 12, 2167-2174.	1.5	14
11	SHMIP The subglacial hydrology model intercomparison Project. Journal of Glaciology, 2018, 64, 897-916.	1.1	50
12	Influence of increasing surface melt over decadal timescales on land-terminating Greenland-type outlet glaciers. Journal of Glaciology, 2018, 64, 700-710.	1.1	29
13	Design and results of the ice sheet model initialisation experiments initMIP-Greenland: an ISMIP6 intercomparison. Cryosphere, 2018, 12, 1433-1460.	1.5	89
14	The role of subtemperate slip in thermally driven ice stream margin migration. Cryosphere, 2018, 12, 2545-2568.	1.5	9
15	Stress Redistribution Explains Anti-correlated Subglacial Pressure Variations. Frontiers in Earth Science, 2018, 5, .	0.8	6
16	Sensitivity of grounding line dynamics to the choice of the friction law. Journal of Glaciology, 2017, 63, 854-866.	1.1	71
17	Marine ice sheet model performance depends on basal sliding physics and sub-shelf melting. Cryosphere, 2017, 11, 319-329.	1.5	43
18	Is there 1.5-million-year-old ice near DomeÂC, Antarctica?. Cryosphere, 2017, 11, 2427-2437.	1.5	36

#	Article	IF	Citations
19	A comparison of two Stokes ice sheet models applied toÂtheÂMarineÂIceÂSheet Model Intercomparison ProjectÂforÂplanÂviewÂmodels (MISMIP3d). Cryosphere, 2017, 11, 179-190.	1.5	3
20	An ice-sheet-wide framework for englacial attenuation from ice-penetrating radar data. Cryosphere, 2016, 10, 1547-1570.	1.5	20
21	Brief communication: Impact of mesh resolution for MISMIP and MISMIP3d experiments using Elmer/Ice. Cryosphere, 2016, 10, 307-312.	1.5	18
22	Performance and applicability of a 2.5-D ice-flow model in the vicinity of a dome. Geoscientific Model Development, 2016, 9, 2301-2313.	1.3	5
23	Assimilation of surface velocities acquired between 1996 and 2010 to constrain the form of the basal friction law under Pine Island Glacier. Geophysical Research Letters, 2016, 43, 10,311.	1.5	64
24	The safety band of Antarctic ice shelves. Nature Climate Change, 2016, 6, 479-482.	8.1	279
25	Comparison of adjoint and nudging methods to initialise ice sheet model basal conditions. Geoscientific Model Development, 2016, 9, 2549-2562.	1.3	20
26	A boundary layer model for ice stream margins. Journal of Fluid Mechanics, 2015, 781, 353-387.	1.4	20
27	Assessment of thermal change in cold avalanching glaciers in relation to climate warming. Geophysical Research Letters, 2015, 42, 6382-6390.	1.5	21
28	Mechanisms of subglacial cavity filling in Glacier de TÃªte Rousse, French Alps. Journal of Glaciology, 2015, 61, 609-623.	1.1	7
29	Modelling the impact of submarine frontal melting and ice mÃ©lange on glacier dynamics. Cryosphere, 2015, 9, 989-1003.	1.5	44
30	Assimilation of Antarctic velocity observations provides evidence for uncharted pinning points. Cryosphere, 2015, 9, 1427-1443.	1.5	39
31	Monitoring water accumulation in a glacier using magnetic resonance imaging. Cryosphere, 2014, 8, 155-166.	1.5	22
32	Effect of uncertainty in surface mass balanceâ€“elevation feedback on projections of the future sea level contribution of the Greenland ice sheet. Cryosphere, 2014, 8, 195-208.	1.5	67
33	Probabilistic parameterisation of the surface mass balanceâ€“elevation feedback in regional climate model simulations of the Greenland ice sheet. Cryosphere, 2014, 8, 181-194.	1.5	26
34	Combining damage and fracture mechanics to model calving. Cryosphere, 2014, 8, 2101-2117.	1.5	78
35	A double continuum hydrological model for glacier applications. Cryosphere, 2014, 8, 137-153.	1.5	38
36	Two independent methods for mapping the grounding line of an outlet glacier â€“ an example from the Astrolabe Glacier, Terre AdÃ©lie, Antarctica. Cryosphere, 2014, 8, 1331-1346.	1.5	13

#	Article	IF	Citations
37	Multiscale modeling of ice deformation behavior. Journal of Structural Geology, 2014, 61, 78-108.	1.0	64
38	Retreat of Pine Island Glacier controlled by marine ice-sheet instability. Nature Climate Change, 2014, 4, 117-121.	8.1	366
39	A 3â€Ð thermal regime model suitable for cold accumulation zones of polythermal mountain glaciers. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1876-1893.	1.0	23
40	Grounding line transient response in marine ice sheet models. Cryosphere, 2013, 7, 395-406.	1.5	29
41	Capabilities and performance of Elmer/Ice, a new-generation ice sheet model. Geoscientific Model Development, 2013, 6, 1299-1318.	1.3	284
42	Enhanced basal lubrication and the contribution of the Greenland ice sheet to future sea-level rise. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14156-14161.	3.3	85
43	Grounding-line migration in plan-view marine ice-sheet models: results of the ice2sea MISMIP3d intercomparison. Journal of Glaciology, 2013, 59, 410-422.	1.1	179
44	On Duddu and Waisman (2012, 2013) concerning continuum damage mechanics applied to crevassing and iceberg calving. Journal of Glaciology, 2013, 59, 797-798.	1.1	5
45	Greenland ice sheet contribution to sea-level rise from a new-generation ice-sheet model. Cryosphere, 2012, 6, 1561-1576.	1.5	196
46	Results of the Marine Ice Sheet Model Intercomparison Project, MISMIP. Cryosphere, 2012, 6, 573-588.	1.5	191
47	A three-dimensional full Stokes model of the grounding line dynamics: effect of a pinning point beneath the ice shelf. Cryosphere, 2012, 6, 101-112.	1.5	88
48	The stability of grounding lines on retrograde slopes. Cryosphere, 2012, 6, 1497-1505.	1.5	203
49	Simulations of the Greenland ice sheet 100 years into the future with the full Stokes model Elmer/Ice. Journal of Glaciology, 2012, 58, 427-440.	1.1	104
50	Estimating the risk of glacier cavity collapse during artificial drainage: The case of TÃªte Rousse Glacier. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	12
51	Impact of bedrock description on modeling ice sheet dynamics. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	68
52	Investigating changes in basal conditions of Variegated Glacier prior to and during its 1982â€“1983 surge. Cryosphere, 2011, 5, 659-672.	1.5	67
53	Enhancement factors for grounded ice and ice shelves inferred from an anisotropic ice-flow model. Journal of Glaciology, 2010, 56, 805-812.	1.1	92
54	Coupling of iceâ€shelf melting and buttressing is a key process in iceâ€sheets dynamics. Geophysical Research Letters, 2010, 37, .	1.5	125

#	Article	IF	Citations
55	Full Stokes modeling of marine ice sheets: influence of the grid size. Annals of Glaciology, 2009, 50, 109-114.	2.8	77
56	Marine ice sheet dynamics: Hysteresis and neutral equilibrium. Journal of Geophysical Research, 2009, 114, .	3.3	106
57	On the effects of anisotropic rheology on ice flow, internal structure, and the ageâ€depth relationship at ice divides. Journal of Geophysical Research, 2009, 114, .	3.3	95
58	Application of a continuum-mechanical model for the flow of anisotropic polar ice to the EDML core, Antarctica. Journal of Glaciology, 2008, 54, 631-642.	1.1	41
59	Benchmark experiments for higher-order and full-Stokes ice sheet models (ISMIPâ€"HOM). Cryosphere, 2008, 2, 95-108.	1.5	221
60	The ISMIP-HOM benchmark experiments performed using the Finite-Element code Elmer. Cryosphere, 2008, 2, 67-76.	1.5	68
61	A full Stokes-flow thermo-mechanical model for firn and ice applied to the Gorshkov crater glacier, Kamchatka. Annals of Glaciology, 2007, 45, 29-37.	2.8	101
62	Finite-element modeling of subglacial cavities and related friction law. Journal of Geophysical Research, 2007, 112, .	3.3	112
63	Correction to â€œFinite-element modeling of subglacial cavities and related friction lawâ€• Journal of Geophysical Research, 2007, 112, .	3.3	4
64	1-D-ice flow modelling at EPICA Dome C and Dome Fuji, East Antarctica. Climate of the Past, 2007, 3, 243-259.	1.3	135
65	Change in ice rheology during climate variations â€" implications for ice flow modelling and dating of the EPICA Dome C core. Climate of the Past, 2007, 3, 155-167.	1.3	68
66	Ice microstructure and fabric: an up-to-date approach for measuring textures. Journal of Glaciology, 2006, 52, 619-630.	1.1	43
67	Flow-induced anisotropy in polar ice and related ice-sheet flow modelling. Journal of Non-Newtonian Fluid Mechanics, 2006, 134, 33-43.	1.0	50
68	A user-friendly anisotropic flow law for ice-sheet modeling. Journal of Glaciology, 2005, 51, 3-14.	1.1	57
69	Glacier flow modelling: a comparison of the Shallow Ice Approximation and the full-Stokes solution. Comptes Rendus Physique, 2004, 5, 709-722.	0.3	107
70	Modelling the mechanical interaction between flowing materials and retaining wire structures. Computers and Geotechnics, 2004, 31, 427-441.	2.3	4
71	Grain area as a statistical weight for polycrystal constituents. Journal of Glaciology, 2004, 50, 87-95.	1.1	12
72	Lateral boundary conditions for a local anisotropic ice-flow model. Annals of Glaciology, 2002, 35, 503-509.	2.8	11

#	Article	IF	Citations
73	Simulation of anisotropic ice flow and fabric evolution along the GRIPâ€“GISP2 flowline, central Greenland. Annals of Glaciology, 2000, 30, 217-223.	2.8	22
74	Two orthotropic models for strain-induced anisotropy of polar ice. Journal of Glaciology, 1999, 45, 485-494.	1.1	16
75	Flow simulation of a firn-covered cold glacier. Annals of Glaciology, 1997, 24, 242-248.	2.8	31