Jeremie Mouginot

List of Publications by Year
in descending order

99 papers	14,285 citations	38742 50 h-index	37204 96 g-index

125 all docs	125 docs citations	125 times ranked	8126 citing authors

#	Article	IF	Citations
1	Bedmap2: improved ice bed, surface and thickness datasets for Antarctica. Cryosphere, 2013, 7, 375-393.	3.9	1,455
2	A Reconciled Estimate of Ice-Sheet Mass Balance. Science, 2012, 338, 1183-1189.	12.6	1,246
3	Ice-Shelf Melting Around Antarctica. Science, 2013, 341, 266-270.	12.6	986
4	Ice Flow of the Antarctic Ice Sheet. Science, 2011, 333, 1427-1430.	12.6	906
5	Mass balance of the Antarctic Ice Sheet from 1992 to 2017. Nature, 2018, 558, 219-222.	27.8	759
6	Four decades of Antarctic Ice Sheet mass balance from 1979â€“2017. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1095-1103.	7.1	662
7	Widespread, rapid grounding line retreat of Pine Island, Thwaites, Smith, and Kohler glaciers, West Antarctica, from 1992 to 2011. Geophysical Research Letters, 2014, 41, 3502-3509.	4.0	621
8	BedMachine v3: Complete Bed Topography and Ocean Bathymetry Mapping of Greenland From Multibeam Echo Sounding Combined With Mass Conservation. Geophysical Research Letters, 2017, 44, 11051-11061.	4.0	536
9	Forty-six years of Greenland Ice Sheet mass balance from 1972 to 2018. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9239-9244.	7.1	452
10	Deep glacial troughs and stabilizing ridges unveiled beneath the margins of the Antarctic ice sheet. Nature Geoscience, 2020, 13, 132-137.	12.9	431
11	Antarctic grounding line mapping from differential satellite radar interferometry. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	366
12	A new bed elevation dataset for Greenland. Cryosphere, 2013, 7, 499-510.	3.9	341
13	Sustained increase in ice discharge from the Amundsen Sea Embayment, West Antarctica, from 1973 to 2013. Geophysical Research Letters, 2014, 41, 1576-1584.	4.0	333
14	Subsurface Radar Sounding of the South Polar Layered Deposits of Mars. Science, 2007, 316, 92-95.	12.6	330
15	Deeply incised submarine glacial valleys beneath the Greenland ice sheet. Nature Geoscience, 2014, 7, 418-422.	12.9	209
16	Improved representation of East Antarctic surface mass balance in a regional atmospheric climate model. Journal of Glaciology, 2014, 60, 761-770.	2.2	208
17	Ice flow in Greenland for the International Polar Year 2008â€“2009. Geophysical Research Letters, 2012, 39, .	4.0	193
18	Comprehensive Annual Ice Sheet Velocity Mapping Using Landsat-8, Sentinel-1, and RADARSAT-2 Data. Remote Sensing, 2017, 9, 364.	4.0	181

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19	Mapping of Ice Motion in Antarctica Using Synthetic-Aperture Radar Data. Remote Sensing, 2012, 4, 2753-2767.	4.0	168
20	Fast retreat of ZachariÃ¦ IsstrÃ¸m, northeast Greenland. Science, 2015, 350, 1357-1361.	12.6	158
21	Continuity of Ice Sheet Mass Loss in Greenland and Antarctica From the GRACE and GRACE Followâ€On Missions. Geophysical Research Letters, 2020, 47, e2020GL087291.	4.0	155
22	Observed latitudinal variations in erosion as a function of glacier dynamics. Nature, 2015, 526, 100-103.	27.8	151
23	North polar deposits of Mars: Extreme purity of the water ice. Geophysical Research Letters, 2009, 36, .	4.0	129
24	Estimation of the total electron content of the Martian ionosphere using radar sounder surface echoes. Geophysical Research Letters, 2007, 34, .	4.0	115
25	Dielectric map of the Martian northern hemisphere and the nature of plain filling materials. Geophysical Research Letters, 2012, 39, .	4.0	112
26	Dependence of century-scale projections of the Greenland ice sheet on its thermal regime. Journal of Glaciology, 2013, 59, 1024-1034.	2.2	111
27	Continentâ€Wide, Interferometric SAR Phase, Mapping of Antarctic Ice Velocity. Geophysical Research Letters, 2019, 46, 9710-9718.	4.0	110
28	Heterogeneous retreat and ice melt of Thwaites Glacier, West Antarctica. Science Advances, 2019, 5, eaau3433.	10.3	109
29	Ice velocity and thickness of the worldâ€™s glaciers. Nature Geoscience, 2022, 15, 124-129.	12.9	106
30	A large impact crater beneath Hiawatha Glacier in northwest Greenland. Science Advances, 2018, 4, eaar8173.	10.3	97
31	Mass loss of the Amundsen Sea Embayment of West Antarctica from four independent techniques. Geophysical Research Letters, 2014, 41, 8421-8428.	4.0	91
32	Ocean forcing drives glacier retreat in Greenland. Science Advances, 2021, 7, .	10.3	86
33	Modeling of oceanâ€induced ice melt rates of five west Greenland glaciers over the past two decades. Geophysical Research Letters, 2016, 43, 6374-6382.	4.0	85
34	Accumulation and Erosion of Mars' South Polar Layered Deposits. Science, 2007, 317, 1715-1718.	12.6	84
35	The 3â€“5MHz global reflectivity map of Mars by MARSIS/Mars Express: Implications for the current inventory of subsurface H2O. Icarus, 2010, 210, 612-625.	2.5	82
36	Creep deformation and buttressing capacity of damaged ice shelves: theory and application to Larsen C ice shelf. Cryosphere, 2013, 7, 1931-1947.	3.9	78

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37	Ice motion of the Patagonian Icefields of South America: 1984â€“2014. Geophysical Research Letters, 2015, 42, 1441-1449.	4.0	76
38	Grounding line retreat of Totten Glacier, East Antarctica, 1996 to 2013. Geophysical Research Letters, 2015, 42, 8049-8056.	4.0	71
39	Observations of aurorae by SPICAM ultraviolet spectrograph on board Mars Express: Simultaneous ASPERAâ€3 and MARSIS measurements. Journal of Geophysical Research, 2008, 113, .	3.3	70
40	Correction of the ionospheric distortion on the MARSIS surface sounding echoes. Planetary and Space Science, 2008, 56, 917-926.	1.7	68
41	Getz Ice Shelf melting response to changes in ocean forcing. Journal of Geophysical Research: Oceans, 2013, 118, 4152-4168.	2.6	68
42	Mapping Surface Flow Velocity of Glaciers at Regional Scale Using a Multiple Sensors Approach. Remote Sensing, 2019, 11, 2498.	4.0	68
43	Grounding line retreat of Pope, Smith, and Kohler Glaciers, West Antarctica, measured with Sentinelâ€1a radar interferometry data. Geophysical Research Letters, 2016, 43, 8572-8579.	4.0	67
44	Oceanâ€Induced Melt Triggers Glacier Retreat in Northwest Greenland. Geophysical Research Letters, 2018, 45, 8334-8342.	4.0	65
45	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.	4.0	64
46	Distributed Global Debris Thickness Estimates Reveal Debris Significantly Impacts Glacier Mass Balance. Geophysical Research Letters, 2021, 48, e2020GL091311.	4.0	64
47	Ice flow dynamics and mass loss of Totten Glacier, East Antarctica, from 1989 to 2015. Geophysical Research Letters, 2016, 43, 6366-6373.	4.0	63
48	Channelized Melting Drives Thinning Under a Rapidly Melting Antarctic Ice Shelf. Geophysical Research Letters, 2017, 44, 9796-9804.	4.0	61
49	Sensitivity of the dynamics of Pine Island Glacier, West Antarctica, to climate forcing for the next 50 years. Cryosphere, 2014, 8, 1699-1710.	3.9	58
50	Rapid submarine ice melting in the grounding zones of ice shelves in West Antarctica. Nature Communications, 2016, 7, 13243.	12.8	58
51	Vulnerability of Southeast Greenland Glaciers to Warm Atlantic Water From Operation IceBridge and Ocean Melting Greenland Data. Geophysical Research Letters, 2018, 45, 2688-2696.	4.0	51
52	The mechanisms behind Jakobshavn IsbrÃ¦'s acceleration and mass loss: A 3â€Ð thermomechanical model study. Geophysical Research Letters, 2017, 44, 6252-6260.	4.0	49
53	High-resolution bed topography mapping of Russell Glacier, Greenland, inferred from Operation IceBridge data. Journal of Glaciology, 2013, 59, 1015-1023.	2.2	47
54	Increased ice flow in Western Palmer Land linked to ocean melting. Geophysical Research Letters, 2017, 44, 4159-4167.	4.0	47

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55	Greenland Ice Sheet solid ice discharge from 1986 through 2017. Earth System Science Data, 2019, 11, 769-786.	9.9	45
56	Ice velocity changes in the Ross and Ronne sectors observed using satellite radar data from 1997 and 2009. Cryosphere, 2012, 6, 1019-1030.	3.9	42
57	Lowâ€frequency radar sounding of temperate ice masses in Southern Alaska. Geophysical Research Letters, 2013, 40, 5399-5405.	4.0	42
58	Modeling the Response of Nioghalvfjerdsfjorden and Zachariae IsstrÃ¸m Glaciers, Greenland, to Ocean Forcing Over the Next Century. Geophysical Research Letters, 2017, 44, 11,071.	4.0	41
59	Assimilation of Antarctic velocity observations provides evidence for uncharted pinning points. Cryosphere, 2015, 9, 1427-1443.	3.9	39
60	A modeling study of the effect of runoff variability on the effective pressure beneath Russell Glacier, West Greenland. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1834-1848.	2.8	38
61	Centennial response of Greenlandâ€™s three largest outlet glaciers. Nature Communications, 2020, 11, 5718.	12.8	36
62	Mass budget of the glaciers and ice caps of the Queen Elizabeth Islands, Canada, from 1991 to 2015. Environmental Research Letters, 2017, 12, 024016.	5.2	35
63	On the Shortâ€term Grounding Zone Dynamics of Pine Island Glacier, West Antarctica, Observed With COSMOâ€SkyMed Interferometric Data. Geophysical Research Letters, 2017, 44, 10,436.	4.0	33
64	Total electron content in the Martian atmosphere: A critical assessment of the Mars Express MARSIS data sets. Journal of Geophysical Research: Space Physics, 2015, 120, 2166-2182.	2.4	32
65	Computing the volume response of the Antarctic Peninsula ice sheet to warming scenarios to 2200. Journal of Glaciology, 2013, 59, 397-409.	2.2	31
66	Rapid glacier retreat rates observed in West Antarctica. Nature Geoscience, 2022, 15, 48-53.	12.9	31
67	Data Reduction Using Statistical and Regression Approaches for Ice Velocity Derived by Landsat-8, Sentinel-1 and Sentinel-2. Remote Sensing, 2020, 12, 1935.	4.0	30
68	Ocean melting of the Zachariae IsstrÃ¸m and Nioghalvfjerdsfjorden glaciers, northeast Greenland. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	30
69	Detectability of subsurface interfaces in lunar maria by the LRS/SELENE sounding radar: Influence of mineralogical composition. Geophysical Research Letters, 2010, 37, .	4.0	29
70	Bed elevation of Jakobshavn Isbrae, West Greenland, from high-resolution airborne gravity and other data. Geophysical Research Letters, 2017, 44, 3728-3736.	4.0	29
71	MARSIS surface reflectivity of the south residual cap of Mars. Icarus, 2009, 201, 454-459.	2.5	28
72	Ice Thickness and Bed Elevation of the Northern and Southern Patagonian Icefields. Geophysical Research Letters, 2019, 46, 6626-6635.	4.0	28

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73	Grounding Line Retreat of Denman Glacier, East Antarctica, Measured With COSMOâ€SkyMed Radar Interferometry Data. Geophysical Research Letters, 2020, 47, e2019GL086291.	4.0	28
74	High-resolution ice-thickness mapping in South Greenland. Annals of Glaciology, 2014, 55, 64-70.	1.4	27
75	Ionospheric correction of InSAR data for accurate ice velocity measurement at polar regions. Remote Sensing of Environment, 2018, 209, 166-180.	11.0	23
76	Insights on the Surge Behavior of StorstrÃ¸mmen and L. Bistrup BrÃ¦, Northeast Greenland, Over the Last Century. Geophysical Research Letters, 2018, 45, 11,197.	4.0	20
77	Intercomparison and Validation of SAR-Based Ice Velocity Measurement Techniques within the Greenland Ice Sheet CCI Project. Remote Sensing, 2018, 10, 929.	4.0	18
78	Variability in ionospheric total electron content at Mars. Planetary and Space Science, 2013, 86, 117-129.	1.7	16
79	Low-frequency radar sounding of ice in East Antarctica and southern Greenland. Annals of Glaciology, 2014, 55, 138-146.	1.4	16
80	Large asymmetric polar scarps on Planum Australe, Mars: Characterization and evolution. Icarus, 2011, 212, 96-109.	2.5	15
81	Control of Ocean Temperature on Jakobshavn IsbrÃ¦'s Present and Future Mass Loss. Geophysical Research Letters, 2018, 45, 12,912.	4.0	15
82	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.	3.9	13
83	A Century of Stability of Avannarleq and Kujalleq Glaciers, West Greenland, Explained Using Highâ€Resolution Airborne Gravity and Other Data. Geophysical Research Letters, 2018, 45, 3156-3163.	4.0	13
84	Ice flow modelling to constrain the surface mass balance and ice discharge of San Rafael Glacier, Northern Patagonia Icefield. Journal of Glaciology, 2018, 64, 568-582.	2.2	12
85	Constraining an Ocean Model Under Getz Ice Shelf, Antarctica, Using A Gravityâ€Derived Bathymetry. Geophysical Research Letters, 2020, 47, e2019GL086522.	4.0	12
86	The Basal Detectability of an Iceâ€Covered Mars by MARSIS. Geophysical Research Letters, 2022, 49, .	4.0	12
87	Retreat of Humboldt Gletscher, North Greenland, Driven by Undercutting From a Warmer Ocean. Geophysical Research Letters, 2021, 48, e2020GL091342.	4.0	10
88	A Major Collapse of Kangerlussuaq Glacier's Ice Tongue Between 1932 and 1933 in East Greenland. Geophysical Research Letters, 2020, 47, e2019GL085954.	4.0	9
89	The equivalent slab thickness of Mars' ionosphere: Implications for thermospheric temperature. Geophysical Research Letters, 2015, 42, 3560-3568.	4.0	8
90	Iceâ€dammed lake drainage in west Greenland: Drainage pattern and implications on ice flow and bedrock motion. Geophysical Research Letters, 2017, 44, 7320-7327.	4.0	8

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91	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. Elementa, 2019, 7, .	3.2	6
92	Seasonal evolution of basal environment conditions of Russell sector, West Greenland, inverted from satellite observation of surface flow. Cryosphere, 2021, 15, 5675-5704.	3.9	5
93	A Late Paleocene age for Greenlandâ€™s Hiawatha impact structure. Science Advances, 2022, 8, eabm2434.	10.3	4
94	Impact of Calving Dynamics on Kangilernata Sermia, Greenland. Geophysical Research Letters, 2020, 47, e2020GL088524.	4.0	3
95	Validation of Glacier Topographic Acquisitions from an Airborne Single-Pass Interferometer. Sensors, 2019, 19, 3700.	3.8	2
96	Helheim Glacier's Terminus Position Controls Its Seasonal and Interâ€Annual Ice Flow Variability. Geophysical Research Letters, 2022, 49, .	4.0	2
97	Surface echo reduction by clutter simulation, application to the Marsis data. , 2009, , .		1
98	Antarctic ICE sheet grounding line migration monitoring using COSMO-SkyMed very short repeat-time SAR interferometry. , 2017, , .		0
99	FUSION OF MULTI-TEMPORAL AND MULTI-SENSOR ICE VELOCITY OBSERVATIONS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2022, 311-318.	0.0	0