# Mathieu Morlighem

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 153 papers | 10,591 citations | 31976 53 h-index | 37204 96 g-index |
| 242 all docs | 242 docs citations | 242 times ranked | 5571 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A new vertically integrated MOno-Layer Higher-OrderÂ(MOLHO) ice flow model. Cryosphere, 2022, 16, 179-195. | 3.9 | 5 |
| 2 | Seasonal Tidewater Glacier Terminus Oscillations Bias Multiâ€Ðecadal Projections of Ice Mass Change. Journal of Geophysical Research F: Earth Surface, 2022, 127, . | 2.8 | 6 |
| 3 | Ice velocity and thickness of the worldâ€™s glaciers. Nature Geoscience, 2022, 15, 124-129. | 12.9 | 106 |
| 4 | Helheim Glacier's Terminus Position Controls Its Seasonal and Interâ€Annual Ice Flow Variability. Geophysical Research Letters, 2022, 49, . | 4.0 | 2 |
| 5 | Geometric controls of tidewater glacier dynamics. Cryosphere, 2022, 16, 581-601. | 3.9 | 7 |
| 6 | Thank You to Our 2021 Peer Reviewers. Geophysical Research Letters, 2022, 49, . | 4.0 | 0 |
| 7 | Petermann ice shelf may not recover after a future breakup. Nature Communications, 2022, 13, 2519. | 12.8 | 6 |
| 8 | Characteristic Depths, Fluxes, and Timescales for Greenland's Tidewater Glacier Fjords From Subglacial Dischargeâ€Ðriven Upwelling During Summer. Geophysical Research Letters, 2022, 49, . | 4.0 | 11 |
| 9 | A scalability study of the Ice-sheet and Sea-level System Model (ISSM, version 4.18). Geoscientific Model Development, 2022, 15, 3753-3771. | 3.6 | 3 |
| 10 | The International Bathymetric Chart of the Southern Ocean Version 2. Scientific Data, 2022, 9, . | 5.3 | 28 |
| 11 | Simulating the Holocene deglaciation across a marine-terminating portion of southwestern Greenland in response to marine and atmospheric forcings. Cryosphere, 2022, 16, 2355-2372. | 3.9 | 2 |
| 12 | Steep Glacier Bed Knickpoints Mitigate Inland Thinning in Greenland. Geophysical Research Letters, 2021, 48, e2020GL090112. | 4.0 | 15 |
| 13 | Results from the Ice Thickness Models Intercomparison eXperiment Phase 2 (ITMIX2). Frontiers in Earth Science, 2021, 8, . | 1.8 | 22 |
| 14 | Topographic Correction of Geothermal Heat Flux in Greenland and Antarctica. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005598. | 2.8 | 19 |
| 15 | Ice dynamics will remain a primary driver of Greenland ice sheet mass loss over the next century. Communications Earth & Environment, 2021, 2, . | 6.8 | 51 |
| 16 | Retreat of Humboldt Gletscher, North Greenland, Driven by Undercutting From a Warmer Ocean. Geophysical Research Letters, 2021, 48, e2020GL091342. | 4.0 | 10 |
| 17 | The transferability of adjoint inversion products between different ice flow models. Cryosphere, 2021, 15, 1975-2000. | 3.9 | 12 |
| 18 | The Impact of Variable Ocean Temperatures on Totten Glacier Stability and Discharge. Geophysical Research Letters, 2021, 48, e2020GL091790. | 4.0 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Thank You to Our 2020 Peer Reviewers. Geophysical Research Letters, 2021, 48, e2021GL093126. | 4.0 | 0 |
| 20 | Projected land ice contributions to twenty-first-century sea level rise. Nature, 2021, 593, 74-82. | 27.8 | 200 |
| 21 | Assessment of numerical schemes for transient, finite-element ice flow models using ISSM v4.18. Geoscientific Model Development, 2021, 14, 2545-2573. | 3.6 | 6 |
| 22 | Future Projections of Petermann Glacier Under Ocean Warming Depend Strongly on Friction Law. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005921. | 2.8 | 15 |
| 23 | The Holocene dynamics of Ryder Glacier and ice tongue in north Greenland. Cryosphere, 2021, 15, 4073-4097. | 3.9 | 11 |
| 24 | Widespread Grounding Line Retreat of Totten Glacier, East Antarctica, Over the 21st Century. Geophysical Research Letters, 2021, 48, e2021GL093213. | 4.0 | 17 |
| 25 | Future Sea Level Change Under Coupled Model Intercomparison Project Phase 5 and Phase 6 Scenarios From the Greenland and Antarctic Ice Sheets. Geophysical Research Letters, 2021, 48, e2020GL091741. | 4.0 | 28 |
| 26 | Drivers of Change of Thwaites Glacier, West Antarctica, Between 1995 and 2015. Geophysical Research Letters, 2021, 48, e2021GL093102. | 4.0 | 6 |
| 27 | Ocean forcing drives glacier retreat in Greenland. Science Advances, 2021, 7, . | 10.3 | 86 |
| 28 | Drygalski Ice Tongue stability influenced by rift formation and ice morphology. Journal of Glaciology, 2021, 67, 243-252. | 2.2 | 10 |
| 29 | Elastic deformation plays a non-negligible role in Greenlandâ€™s outlet glacier flow. Communications Earth & Environment, 2021, 2, . | 6.8 | 14 |
| 30 | Mapping the Sensitivity of the Amundsen Sea Embayment to Changes in External Forcings Using Automatic Differentiation. Geophysical Research Letters, 2021, 48, e2021GL095440. | 4.0 | 7 |
| 31 | Deep glacial troughs and stabilizing ridges unveiled beneath the margins of the Antarctic ice sheet. Nature Geoscience, 2020, 13, 132-137. | 12.9 | 431 |
| 32 | Rate of mass loss from the Greenland Ice Sheet will exceed Holocene values this century. Nature, 2020, 586, 70-74. | 27.8 | 53 |
| 33 | The International Bathymetric Chart of the Arctic Ocean Version 4.0. Scientific Data, 2020, 7, 176. | 5.3 | 129 |
| 34 | Centennial response of Greenlandâ€™s three largest outlet glaciers. Nature Communications, 2020, 11, 5718. | 12.8 | 36 |
| 35 | Antarctic ice sheet response to sudden and sustained ice-shelf collapse (ABUMIP). Journal of Glaciology, 2020, 66, 891-904. | 2.2 | 70 |
| 36 | Thank You to Our 2019 Peer Reviewers. Geophysical Research Letters, 2020, 47, e2020GL088048. | 4.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Constraining an Ocean Model Under Getz Ice Shelf, Antarctica, Using A Gravityâ€Derived Bathymetry. Geophysical Research Letters, 2020, 47, e2019GL086522. | 4.0 | 12 |
| 38 | The uncertain future of the Antarctic Ice Sheet. Science, 2020, 367, 1331-1335. | 12.6 | 83 |
| 39 | Grounding Line Retreat of Denman Glacier, East Antarctica, Measured With COSMOâ€SkyMed Radar Interferometry Data. Geophysical Research Letters, 2020, 47, e2019GL086291. | 4.0 | 28 |
| 40 | Projecting Antarctica's contribution to future sea level rise from basal ice shelf melt using linear response functions of 16 ice sheet models (LARMIP-2). Earth System Dynamics, 2020, 11, 35-76. | 7.1 | 92 |
| 41 | Twenty-first century ocean forcing of the Greenland ice sheet for modelling of sea level contribution. Cryosphere, 2020, 14, 985-1008. | 3.9 | 51 |
| 42 | Aurora Basin, the Weak Underbelly of East Antarctica. Geophysical Research Letters, 2020, 47, e2019GL086821. | 4.0 | 11 |
| 43 | Bed topography of Princess Elizabeth Land in East Antarctica. Earth System Science Data, 2020, 12, 2765-2774. | 9.9 | 34 |
| 44 | Results of the third Marine Ice Sheet Model Intercomparison Project (MISMIP+). Cryosphere, 2020, 14, 2283-2301. | 3.9 | 53 |
| 45 | Experimental protocol for sea level projections from ISMIP6 stand-alone ice sheet models. Cryosphere, 2020, 14, 2331-2368. | 3.9 | 72 |
| 46 | ISMIP6 Antarctica: a multi-model ensemble of the Antarctic ice sheet evolution over the 21st century. Cryosphere, 2020, 14, 3033-3070. | 3.9 | 198 |
| 47 | The future sea-level contribution of the Greenland ice sheet: a multi-model ensemble study of ISMIP6. Cryosphere, 2020, 14, 3071-3096. | 3.9 | 144 |
| 48 | Extended enthalpy formulations in the Ice-sheet and Sea-level System Model (ISSM) version 4.17: discontinuous conductivity and anisotropic streamline upwind Petrovâ€“Galerkin (SUPG) method. Geoscientific Model Development, 2020, 13, 4491-4501. | 3.6 | 4 |
| 49 | ISSM-SLPS: geodetically compliant Sea-Level Projection System for the Ice-sheet and Sea-level System Model v4.17. Geoscientific Model Development, 2020, 13, 4925-4941. | 3.6 | 4 |
| 50 | Bathymetric Influences on Antarctic Iceâ€Shelf Melt Rates. Journal of Geophysical Research: Oceans, 2020, 125, . | 2.6 | 7 |
| 51 | Thank You to Our 2018 Peer Reviewers. Geophysical Research Letters, 2019, 46, 12608-12636. | 4.0 | 0 |
| 52 | Bathymetry of Southeast Greenland From Oceans Melting Greenland (OMG) Data. Geophysical Research Letters, 2019, 46, 11197-11205. | 4.0 | 12 |
| 53 | Implementation and performance of adaptive mesh refinement in the Ice Sheet System Model (ISSM) Tj ETQq1 1 0.784314 rgBT /Ove | 3.6 | 5 |
| 54 | Brief communication: PICOP, a new ocean melt parameterization under ice shelves combining PICO and a plume model. Cryosphere, 2019, 13, 1043-1049. | 3.9 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | initMIP-Antarctica: an ice sheet model initialization experiment of ISMIP6. Cryosphere, 2019, 13, 1441-1471. | 3.9 | 69 |
| 56 | Modeling the response of northwest Greenland to enhanced ocean thermal forcing and subglacial discharge. Cryosphere, 2019, 13, 723-734. | 3.9 | 41 |
| 57 | The impact of model resolution on the simulated Holocene retreat of the southwestern Greenland ice sheet using the Ice Sheet System Model (ISSM). Cryosphere, 2019, 13, 879-893. | 3.9 | 22 |
| 58 | 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 |
| 59 | Slowdown in Antarctic mass loss from solid Earth and sea-level feedbacks. Science, 2019, 364, . | 12.6 | 56 |
| 60 | Impact of Iceberg Calving on the Retreat of Thwaites Glacier, West Antarctica Over the Next Century With Different Calving Laws and Ocean Thermal Forcing. Geophysical Research Letters, 2019, 46, 14539-14547. | 4.0 | 9 |
| 61 | 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 |
| 62 | 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 |
| 63 | Implementation of higher-order vertical finite elements in ISSM v4.13 for improved ice sheet flow modeling over paleoclimate timescales. Geoscientific Model Development, 2018, 11, 1683-1694. | 3.6 | 16 |
| 64 | A statistical fracture model for Antarctic ice shelves and glaciers. Cryosphere, 2018, 12, 3187-3213. | 3.9 | 9 |
| 65 | SHAKTI: Subglacial Hydrology and Kinetic, Transient Interactions v1.0. Geoscientific Model Development, 2018, 11, 2955-2974. | 3.6 | 24 |
| 66 | Simulating ice thickness and velocity evolution of Upernavik IsstrÃ¸m 1849â€“2012 by forcing prescribed terminus positions in ISSM. Cryosphere, 2018, 12, 1511-1522. | 3.9 | 13 |
| 67 | Comparison of four calving laws to model Greenland outlet glaciers. Cryosphere, 2018, 12, 3735-3746. | 3.9 | 30 |
| 68 | Hard rock landforms generate 130â€‰km ice shelf channels through water focusing in basal corrugations. Nature Communications, 2018, 9, 4576. | 12.8 | 17 |
| 69 | Implementing an empirical scalar constitutive relation for ice with flow-induced polycrystalline anisotropy in large-scale ice sheet models. Cryosphere, 2018, 12, 1047-1067. | 3.9 | 19 |
| 70 | Control of Ocean Temperature on Jakobshavn IsbrÃ¦'s Present and Future Mass Loss. Geophysical Research Letters, 2018, 45, 12,912. | 4.0 | 15 |
| 71 | A large impact crater beneath Hiawatha Glacier in northwest Greenland. Science Advances, 2018, 4, eaar8173. | 10.3 | 97 |
| 72 | Exploration of Antarctic Ice Sheet 100-year contribution to sea level rise and associated model uncertainties using the ISSM framework. Cryosphere, 2018, 12, 3511-3534. | 3.9 | 52 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Retreat of Thwaites Glacier, West Antarctica, over the next 100 years using various ice flow models, ice shelf melt scenarios and basal friction laws. Cryosphere, 2018, 12, 3861-3876. | 3.9 | 34 |
| 74 | Near-margin ice thickness and subglacial water routing, Leverett Glacier, Greenland. Arctic, Antarctic, and Alpine Research, 2018, 50, . | 1.1 | 6 |
| 75 | Basal friction of Fleming Glacier, Antarctica â€“ Part 1: Sensitivity of inversion to temperature and bedrock uncertainty. Cryosphere, 2018, 12, 2637-2652. | 3.9 | 19 |
| 76 | Basal friction of Fleming Glacier, Antarctica â€“ PartÂ2: Evolution fromÂ2008 toÂ2015. Cryosphere, 2018, 12, 2653-2666. | 3.9 | 5 |
| 77 | Design and results of the ice sheet model initialisation experiments initMIP-Greenland: an ISMIP6 intercomparison. Cryosphere, 2018, 12, 1433-1460. | 3.9 | 89 |
| 78 | Representation of basal melting at the grounding line in ice flow models. Cryosphere, 2018, 12, 3085-3096. | 3.9 | 62 |
| 79 | Geometric Controls on Tidewater Glacier Retreat in Central Western Greenland. Journal of Geophysical Research F: Earth Surface, 2018, 123, 2024-2038. | 2.8 | 86 |
| 80 | Dynamics of Active Subglacial Lakes in Recovery Ice Stream. Journal of Geophysical Research F: Earth Surface, 2018, 123, 837-850. | 2.8 | 16 |
| 81 | Holocene history of the Helheim Glacier, southeast Greenland. Quaternary Science Reviews, 2018, 193, 145-158. | 3.0 | 12 |
| 82 | Atmosphere-driven ice sheet mass loss paced by topography: Insights from modelling the south-western Scandinavian Ice Sheet. Quaternary Science Reviews, 2018, 195, 32-47. | 3.0 | 15 |
| 83 | Oceanâ€‰induced Melt Triggers Glacier Retreat in Northwest Greenland. Geophysical Research Letters, 2018, 45, 8334-8342. | 4.0 | 65 |
| 84 | Source-to-source adjoint Algorithmic Differentiation of an ice sheet model written in C. Optimization Methods and Software, 2018, 33, 829-843. | 2.4 | 6 |
| 85 | A new bed elevation model for the Weddell Sea sector of the West Antarctic Ice Sheet. Earth System Science Data, 2018, 10, 711-725. | 9.9 | 19 |
| 86 | Ocean-Ice Interactions in Inglefield Gulf: Early Results from NASAâ€™s Oceans Melting Greenland Mission. Oceanography, 2018, 31, . | 1.0 | 11 |
| 87 | Bathymetry of the Amundsen Sea Embayment sector of West Antarctica from Operation IceBridge gravity and other data. Geophysical Research Letters, 2017, 44, 1360-1368. | 4.0 | 63 |
| 88 | 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 |
| 89 | Inland thinning on the Greenland ice sheet controlled by outlet glacier geometry. Nature Geoscience, 2017, 10, 366-369. | 12.9 | 74 |
| 90 | The mechanisms behind Jakobshavn IsbrÃ¦'s acceleration and mass loss: A 3â€Đ thermomechanical model study. Geophysical Research Letters, 2017, 44, 6252-6260. | 4.0 | 49 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Continued retreat of Thwaites Glacier, West Antarctica, controlled by bed topography and ocean circulation. Geophysical Research Letters, 2017, 44, 6191-6199. | 4.0 | 153 |
| 92 | Substantial export of suspended sediment to the global oceans from glacial erosion in Greenland. Nature Geoscience, 2017, 10, 859-863. | 12.9 | 110 |
| 93 | 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 |
| 94 | 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 |
| 95 | 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 |
| 96 | A JavaScript API for the Ice Sheet System Model (ISSM) 4.11: towards an online interactive model for the cryosphere community. Geoscientific Model Development, 2017, 10, 4393-4403. | 3.6 | 2 |
| 97 | Optimal numerical solvers for transient simulations of ice flow using the Ice Sheet System Model (ISSM versions 4.2.5 and 4.11). Geoscientific Model Development, 2017, 10, 155-168. | 3.6 | 5 |
| 98 | How accurate are estimates of glacier ice thickness? Results from ITMIX, the Ice Thickness Models Intercomparison eXperiment. Cryosphere, 2017, 11, 949-970. | 3.9 | 173 |
| 99 | Simulating the evolution of HardangerjÃ¸kulen ice cap in southern Norway since the mid-Holocene and its sensitivity to climate change. Cryosphere, 2017, 11, 281-302. | 3.9 | 27 |
| 100 | Iceberg calving of Thwaites Glacier, West Antarctica: full-Stokes modeling combined with linear elastic fracture mechanics. Cryosphere, 2017, 11, 1283-1296. | 3.9 | 29 |
| 101 | An approach to computing discrete adjoints for MPI-parallelized models applied to Ice Sheet System Model 4.11. Geoscientific Model Development, 2016, 9, 3907-3918. | 3.6 | 8 |
| 102 | neXtSIM: a new Lagrangian sea ice model. Cryosphere, 2016, 10, 1055-1073. | 3.9 | 98 |
| 103 | Linking glacially modified waters to catchment-scale subglacial discharge using autonomous underwater vehicle observations. Cryosphere, 2016, 10, 417-432. | 3.9 | 43 |
| 104 | Modelling calving front dynamics using a level-set method: application to Jakobshavn IsbrÃ¦, West Greenland. Cryosphere, 2016, 10, 497-510. | 3.9 | 51 |
| 105 | An Empirical Approach for Estimating Stress-Coupling Lengths for Marine-Terminating Glaciers. Frontiers in Earth Science, 2016, 4, . | 1.8 | 5 |
| 106 | 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 |
| 107 | Plastic bed beneath HofsjÃ¶kull Ice Cap, central Iceland, and the sensitivity of ice flow to surface meltwater flux. Journal of Glaciology, 2016, 62, 147-158. | 2.2 | 46 |
| 108 | A synthesis of the basal thermal state of the Greenland Ice Sheet. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1328-1350. | 2.8 | 122 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Modeling of Store Gletscher's calving dynamics, West Greenland, in response to ocean thermal forcing. Geophysical Research Letters, 2016, 43, 2659-2666. | 4.0 | 99 |
| 110 | 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 |
| 111 | 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 |
| 112 | A constitutive framework for predicting weakening and reduced buttressing of ice shelves based on observations of the progressive deterioration of the remnant Larsen B Ice Shelf. Geophysical Research Letters, 2016, 43, 2027-2035. | 4.0 | 58 |
| 113 | Basal resistance for three of the largest Greenland outlet glaciers. Journal of Geophysical Research F: Earth Surface, 2016, 121, 168-180. | 2.8 | 44 |
| 114 | Holocene deceleration of the Greenland Ice Sheet. Science, 2016, 351, 590-593. | 12.6 | 39 |
| 115 | 10Be dating reveals early-middle Holocene age of the Drygalski Moraines in central West Greenland. Quaternary Science Reviews, 2016, 147, 59-68. | 3.0 | 19 |
| 116 | A global, high-resolution data set of ice sheet topography, cavity geometry, and ocean bathymetry. Earth System Science Data, 2016, 8, 543-557. | 9.9 | 144 |
| 117 | Improving Bed Topography Mapping of Greenland Glaciers Using NASAâ€™s Oceans Melting Greenland (OMG) Data. , 2016, 29, 62-71. | | 15 |
| 118 | Ice discharge uncertainties in Northeast Greenland from boundary conditions and climate forcing of an ice flow model. Journal of Geophysical Research F: Earth Surface, 2015, 120, 29-54. | 2.8 | 27 |
| 119 | Radar attenuation and temperature within the Greenland Ice Sheet. Journal of Geophysical Research F: Earth Surface, 2015, 120, 983-1008. | 2.8 | 72 |
| 120 | A new sub-grid surface mass balance and flux model for continental-scale ice sheet modelling: testing and last glacial cycle. Geoscientific Model Development, 2015, 8, 3199-3213. | 3.6 | 8 |
| 121 | Fast retreat of ZachariÃ¦ IsstrÃ¸m, northeast Greenland. Science, 2015, 350, 1357-1361. | 12.6 | 158 |
| 122 | Radiostratigraphy and age structure of the Greenland Ice Sheet. Journal of Geophysical Research F: Earth Surface, 2015, 120, 212-241. | 2.8 | 124 |
| 123 | Subglacial lake drainage detected beneath the Greenland ice sheet. Nature Communications, 2015, 6, 8408. | 12.8 | 36 |
| 124 | Grounding line retreat of Totten Glacier, East Antarctica, 1996 to 2013. Geophysical Research Letters, 2015, 42, 8049-8056. | 4.0 | 71 |
| 125 | Supraglacial lakes on the Greenland ice sheet advance inland under warming climate. Nature Climate Change, 2015, 5, 51-55. | 18.8 | 95 |
| 126 | Modeling the Evolution of Polar Ice Sheets. Eos, 2014, 95, 411-411. | 0.1 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Future Antarctic bed topography and its implications for ice sheet dynamics. Solid Earth, 2014, 5, 569-584. | 2.8 | 30 |
| 128 | Hydrostatic grounding line parameterization in ice sheet models. Cryosphere, 2014, 8, 2075-2087. | 3.9 | 83 |
| 129 | Terminus-driven retreat of a major southwest Greenland tidewater glacier during the early 19th century: insights from glacier reconstructions and numerical modelling. Journal of Glaciology, 2014, 60, 333-344. | 2.2 | 34 |
| 130 | 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 |
| 131 | High-resolution ice-thickness mapping in South Greenland. Annals of Glaciology, 2014, 55, 64-70. | 1.4 | 27 |
| 132 | Fluctuations of a Greenlandic tidewater glacier driven by changes in atmospheric forcing: observations and modelling of Kangiata Nunaata Sermia, 1859â€“present. Cryosphere, 2014, 8, 2031-2045. | 3.9 | 26 |
| 133 | Deeply incised submarine glacial valleys beneath the Greenland ice sheet. Nature Geoscience, 2014, 7, 418-422. | 12.9 | 209 |
| 134 | Inferred basal friction and surface mass balance of the Northeast Greenland Ice Stream using data assimilation of ICESat (Ice Cloud and land Elevation Satellite) surface altimetry and ISSM (Ice Sheet) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 | 3.9 | 56 |
| 135 | Representation of sharp rifts and faults mechanics in modeling ice shelf flow dynamics: Application to Brunt/Stancombâ€Wills Ice Shelf, Antarctica. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1918-1935. | 2.8 | 12 |
| 136 | Improved representation of East Antarctic surface mass balance in a regional atmospheric climate model. Journal of Glaciology, 2014, 60, 761-770. | 2.2 | 208 |
| 137 | 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 |
| 138 | Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project I: Antarctica. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1002-1024. | 2.8 | 63 |
| 139 | Inversion of basal friction in Antarctica using exact and incomplete adjoints of a higherâ€order model. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1746-1753. | 2.8 | 120 |
| 140 | Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project II: Greenland. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1025-1044. | 2.8 | 79 |
| 141 | Decadalâ€scale sensitivity of Northeast Greenland ice flow to errors inâ€‰surface mass balance using ISSM. Journal of Geophysical Research F: Earth Surface, 2013, 118, 667-680. | 2.8 | 23 |
| 142 | Grounding-line migration in plan-view marine ice-sheet models: results of the ice2sea MISMIP3d intercomparison. Journal of Glaciology, 2013, 59, 410-422. | 2.2 | 179 |
| 143 | Ice-sheet model sensitivities to environmental forcing and their use in projecting future sea level (the) Tj ETQq1 1 0.784314 rgBT /Ove | 2.2 | 222 |
| 144 | High-resolution bed topography mapping of Russell Glacier, Greenland, inferred from Operation IceBridge data. Journal of Glaciology, 2013, 59, 1015-1023. | 2.2 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Dependence of century-scale projections of the Greenland ice sheet on its thermal regime. Journal of Glaciology, 2013, 59, 1024-1034. | 2.2 | 111 |
| 146 | Coupling ice flow models of varying orders of complexity with the Tiling method. Journal of Glaciology, 2012, 58, 776-786. | 2.2 | 21 |
| 147 | A damage mechanics assessment of the Larsen B ice shelf prior to collapse: Toward a physicallyâ€based calving law. Geophysical Research Letters, 2012, 39, . | 4.0 | 84 |
| 148 | Continental scale, high order, high spatial resolution, ice sheet modeling using the Ice Sheet System Model (ISSM). Journal of Geophysical Research, 2012, 117, . | 3.3 | 311 |
| 149 | Sensitivity Analysis of Pine Island Glacier ice flow using ISSM and DAKOTA. Journal of Geophysical Research, 2012, 117, . | 3.3 | 35 |
| 150 | Ice flow sensitivity to geothermal heat flux of Pine Island Glacier, Antarctica. Journal of Geophysical Research, 2012, 117, . | 3.3 | 51 |
| 151 | Ice flux divergence anomalies on 79north Glacier, Greenland. Geophysical Research Letters, 2011, 38, . | 4.0 | 101 |
| 152 | A mass conservation approach for mapping glacier ice thickness. Geophysical Research Letters, 2011, 38, n/a-n/a. | 4.0 | 170 |
| 153 | Spatial patterns of basal drag inferred using control methods from a fullâ€Stokes and simpler models for Pine Island Glacier, West Antarctica. Geophysical Research Letters, 2010, 37, . | 4.0 | 286 |